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AMERICAN ASSOCIATION OF WORKERS FOR THE BLIND, INC.

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PREFACE

BLINDNESS 1964 is the first issue of an annual published by the American Association of Workers for the Blind under a training grant from the Vocational Rehabilitation Administration, Department of Health, Education and Welfare. It is our plan to provide a forum for important and timely articles—with depth—in our own field and in related fields. Experts in the many categories of work with blind persons will be commissioned to conduct the essential research and prepare the articles so that their continuing value will be assured.

Copies of BLINDNESS 1964 are distributed to members of the Association as a function of membership. The Library of Congress, Division for the Blind, will make the annual available for regional libraries in both braille and recorded form.

BLINDNESS 1964

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Mary E. Switzer, *Commissioner of Vocational Rehabilitation, Department of Health, Education and Welfare since 1950, won the Lasker Award in 1960 in recognition of a long and distinguished career – much of it related to promotion of scientific research.*

C. Warren Bledsoe *is Assistant Chief, Division of Services for the Blind, Vocational Rehabilitation Administration, H. E. W.*

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Wilbur J. Cohen *is now Assistant Secretary of Health, Education and Welfare on leave from Public Welfare Administration, School of Social Work, University of Michigan; concerned with social welfare since the enactment of Social Security Act, 1934/35.*

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Douglas C. MacFarland, *Director of the Virginia Commission for the Visually Handicapped, is President-elect, A.A.W.B.*

Wilma Donahue *is Chairman, Institute for Human Adjustment, Division of Gerontology, The University of Michigan, Ann Arbor, Michigan.*

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Richard E. Hoover, *long interested in the problems of the blind, is an Ophthalmologist, Johns Hopkins University, Baltimore, Md.* C. Warren Bledsoe *assisted Dr. Hoover with this article.*

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Change is the outstanding characteristic of the sixties. The needs of individuals who are blind are now more completely recognized and effectively met; in mobility, as in no other area, change is more loudly proclaimed and also more loudly denounced.

MARTHA J. BALL, *Peripatologist, is Coordinator, Specialized Instruction, Rehabilitation Center, Greater Pittsburgh (Pa.) Guild for the Blind. Assisting Editors were Donald Blasch, Western Michigan University; John Eichorn, Boston College; and George Werntz, Jr., The Seeing Eye, Inc.*

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M. ROBERT BARNETT *is Executive Director, American Foundation for the Blind, New York, New York, and Chairman, American Delegation, World Council for the Welfare of the Blind.*

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History is written by dedicated men and women keenly aware of the changing times in which they live. Both have influenced the development of the AAWB – now strong enough to face the ever increasing challenge of the future.

NORMAN M. YODER, *Commissioner, Office for the Blind, Department of Public Welfare, Commonwealth of Pennsylvania, is co-author with Mary K. Bauman of "Placing the Blind and Visually Handicapped in Professional Occupations," 1962.*

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U.S. GOVERNMENT SPONSORED RESEARCH TO STUDY BLINDNESS

By

Mary E. Switzer and Warren Bledsoe

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U.S. GOVERNMENT SPONSORED RESEARCH TO STUDY BLINDNESS

INTRODUCTION

The support of scientific research by the Federal Government in all fields relating to health, education, and welfare has the dual objective of adding to the sum of human knowledge, and of applying this knowledge to the solution of particular problems better to serve people everywhere.

Research into the problems of blindness has been going on for centuries. The search for the causes and cure of blindness as a disability resulting from disease or accident has provided knowledge to combat diseases like glaucoma, trachoma and conditions like retrolental fibroplasia. The search continues for better ways to make early diagnosis of conditions of the eye leading to blindness and for improved surgical and other procedures to restore sight. The stepped-up research into genetics should yield new facts on congenital blindness.

The Federal Government, through the National Institutes of Health, is increasing its support of basic research in this area as rapidly as competent research scientists can be found to study the problems. The real challenge in the field of work for the blind today is based on the principle of an integrated society, and, therefore, how one can compensate for the loss of sight in a seeing world; this involves research into the basic psychological and sociological attitudes of the blind themselves (and indeed of the sighted toward the blind) which are hindering complete acceptance at home, at work and in the community life of which the blind person is a part.

Where blindness is concerned, a primary consideration is the realization that this handicap influences most of the activities of a human being and affects almost all his functions.

Those of us who are actively concerned about better ways of life for blind people must face the task of making up for the tremendous difference between the pressures which are built up by the whole world, which uses at least a little eyesight to coordinate almost every move (no matter how many gadgets are at hand), and the pressures of a very small percentage who have little or no eyesight to use at any time with any gadget.

At the same time, the emotional impact of blindness can stir society from top to bottom. When this happens it tends to produce reactions that are purely emotional in character, necessitating careful consideration of the consequences of making a sensation out of the process of serving the cause of blind people themselves. In few disabilities do we have the same need for a freshness of research spirit — asking old questions in modern terms — exploiting the knowledge gained from the many studies in the behavioral sciences attempting to understand the growth and development of the human personality as a whole. The nature of man and of his accommodations to the society — fast changing — need deep understanding on the part of blind people and those who serve them, today, as never before.

Warren Weaver wrote in "Goals for Americans" "... science really is not a trivial business of tricky hardware, not the phony bubbling retorts of the advertisements, not strange men with white coats or beards, but the response, at once poetic and analytical, of man's creative mind to the challenge of the mystery of matter and life."1/ This applies quite truly to the scientific effort to cope with the problems of blindness — what it has been and what it needs to become.

As we have looked upon the world-wide scene of work with the blind there seems to be an inordinate number of problems which all kinds of learned people tell us are capable of solution "with a little work," but which go from decade to decade yet unsolved. If we ask ourselves what, up to now, are the great inventions to substitute for want of sight — inventions which have any real claim to universality — the honest answer has a Spartan simplicity. We have raised dots for reading. We have recordings of various kinds. We have the cane, stick or staff, and have had them since early times. We have the typewriter and the Braillewriter. But a case for wide acceptance of instruments beyond these items would be dubious.

In the few years since the 1954 amendments to the Vocational Rehabilitation Act, we have been trying to find out what can be accomplished by a concentrated program of Federal grants for research in ways of managing life by other-than-visual means. The nature of this research, what it is doing and what needs to be done, is the primary focus of this paper. Already we see occurring in this specialized field what has taken place in others: as you give opportunity for a variety of specialists to turn their talents to a problem, unexpected alliances take place. Engineering and medicine have combined to assist in rehabilitation problems of the orthopedically handicapped in the improvement of "hardware" — so too in the problems of the blind we have new allies. One illustration is the enthusiastic response of a group of students at the Massachusetts Institute of Technology involved in work on one of the contracts entered into by that Institution and the Vocational Rehabilitation Administration2/ to work on the problems of blindness. One young scholar3/ began a thesis entitled: "Curve Generation in a Computer-Aided Design" as follows: "A designer is a man who is striving to find new ways for the elements of the universe to serve mankind." In this highly technical paper the humanist shows through. A casual reader might miss the relevance of this research to the problems of blindness. Yet this realm of science is adjacent to a problem the solution to which we crave as much as any other in work for the blind... the mechanical transmittal of inkprint into an other-than-visual media, decipherable by blind people, a problem always about to be solved, but up to now still on the verge of solution.

1/ From the chapter "A Great Age for Science," p. 104, of the Report of the President's Commission on National Goals, 1960.

2/ See page 27. RC-8 "Sensory Measurements Research."

3/ Marvin Delfs.

The exposure of young creative minds to our problems — giving them a fresh interest in the pursuit of basic knowledge for its own sake, and having the wisdom to help them apply what they discover to a practical problem crying for solution — is an objective we seek in our association with our great research centers.

As we look ahead we seek too the improvement in the communication of research findings. In the dynamics of this technological world we want for the blind the fruits of research and inventions not intended for them alone. When Edison invented the phonograph record, who else foresaw the Talking Book? Someone eventually did — but we had to wait too long.

The Vocational Rehabilitation Administration is committed to a program of intense promotion of vocational individuality for blind people — to safeguard them against being herded into lines of work convenient to society, but crushing to personality, to find instead a life work which by its very nature gives the greatest possible opportunity for functioning of each unique combination of talents. For so small a segment of our population dealing with so hard a reality as blindness, this is certainly not too much to expect of our affluent society. The area to be explored is what human beings can achieve, given the element of blindness, and such other elements of disability as are pertinent. While knowing what cannot be achieved without sight is important too, this should not be the major focus.

We are committed also to finding ways to minimize the myths surrounding the blind in our society. What are the true attitudes of the blind to each other — the blind to the sighted and the sighted to the blind? Can we not enlist the skill of that wholly new group of thinkers who specialize in the study of why people feel as they do toward themselves and others? The aim of all our work in rehabilitation is to provide equality of opportunity for all to function in an integrated society. For this ideal we must begin with the blind child not only here, but in parts of the world where blindness is more prevalent, so that when we have to deal with the adult blind it has become second nature to us.

In this paper a great variety of projects currently being supported by the Vocational Rehabilitation Administration are described, as well as many others undertaken by colleagues under other auspices. Some hopeful leads are emerging. Most hopeful, however, is the variety of dedicated talent at work in many places here and abroad. We really do need new knowledge and fresh ideas. As Dr. Irvine H. Page so aptly put it - "To discover the really new requires not only an attitude of mind but the ability to keep the roads to the solution of problems clear, and finally, to drive full speed down them."4/

4/ Research Division, Cleveland Clinic Foundation, Cleveland, Ohio, Editorial for "Science." November 30, 1962.

Early Federal Grants To Study Blindness

The story of large Federal grants for research concerning blindness in common with most of the research in the health and welfare fields begins with World War II. It was supported largely to help in the solution of problems caused by the war.

In 1944, the Office of Scientific Research and Development, under the leadership of Dr. Vannevar Bush, established a Committee on Sensory Devices, whose responsibility was to suggest a program of research in mechanical aids to assist veterans blinded in the war. Under the Chairmanship of Dr. George W. Corner, of the Carnegie Institute of Washington, D.C., this Committee worked from 1945 to 1948 as a subsidiary of the National Research Council of the National Academy of Science.5/ The financial support came from the Office of the Surgeon General of the Army and the Veterans Administration. The research undertaken was in the following four specific areas:

1. Devices for reading ordinary print by the totally blind;
2. Guidance devices for ranging and obstacle-finding;
3. Optical magnifiers to aid persons of limited visual acuity; and
4. Improvement of the "Visagraph," a machine for the production of enlarged embossed images of print, diagrams, etc.

Dr. Corner reported6/ that "in each of the four lines of research, one or more devices were brought to the first stage of practical trial," but that none of these devices would "ever be a comprehensively effective substitute for vision in performing the activities it is intended to aid." He added, however, and with confidence, that they could be expected to meet the particular needs of particular situations.

Dr. Corner and his Committee brought to work for the blind the research spirit at its best. His conviction that a greater commitment of the scientific efforts in great centers of research was needed was not really widely accepted until the last decade, but his influence and that of his Committee continued to be felt to a certain extent in that certain projects begun under the National Research Council were sponsored and continued by the Prosthetics and Sensory Aids Service of the Veterans Administration.7/

One of the most important developments concerning services to blind people occurred in 1943 when Congress passed the Barden-LaFollette Act (Public Law 113), which brought the rehabilitation services for the blind and the State agencies responsible for them into the public program of vocational rehabilitation. The special financial provisions of that Act made it possible to promote certain research ideas in some of the State agencies

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5/ Other members of the Committee on Sensory Devices were Dr. H.A. Barton, Director of the American Institute of Physics; Dr. A.J. Carlson, Department of Physiology, University of Chicago; Dr. W.O. Fenn, Department of Physiology, University of Rochester; Dr. Stacy R. Guild, Otological Research Laboratory, Johns Hopkins Hospital; and Dr. K.S. Lashley, Yerkes Laboratory for Primate Biology.

6/ The work of the Committee is fully reported in "Blindness" edited by Dr. Paul A. Zahl, originally published in 1949 and reissued in 1963.

7/ Further information concerning these projects is to be found on page 48.

serving the blind, and at the same time establish the Office of Vocational Rehabilitation in the Federal Security Agency, now the Department of Health, Education, and Welfare. Within that Office was also established a section called "Services for the Blind."

Although there was no specific provision for research grants as exists at the present time, there was the opportunity to promote research ideas, and perhaps what is more important, to work on a national scale to promote the general welfare of the blind through vocational rehabilitation and to enlarge the scope of opportunity which, in turn, underlined the need for further research in the whole area of blindness.[8/]

A backward glance from 1953 may be obtained from a document prepared by the American Foundation for the Blind entitled, "Current Research in Work for the Blind." Only seventeen projects were listed. Only four received Federal aid. Yet such documents as this were part of a readying process.

Dr. George Corner finished his words of wisdom on blindness by saying, "What is needed is some way to combine incentive with the stimulation and daring that high-level science can provide, and with practical advice in the conduct of investigations."

This could easily have been the language of a platform for what became the Research and Demonstration Grants Program of the Vocational Rehabilitation Administration.

Vocational Rehabilitation Administration

The Vocational Rehabilitation Act of 1954, Public Law 565, 83rd Congress, created a new base of operations for the Vocational Rehabilitation Administration in the Department of Health, Education, and Welfare. It enlarged the financing base of the State-Federal program and established a comprehensive Research and Training grant program, patterned in many ways on the National Institutes of Health.

The Research and Demonstration program is administered in the Vocational Rehabilitation Administration by the Division of Research Grants and Demonstrations under the supervision of the Assistant Commissioner for Research and Training.

The statutory authority is in Sec. 4.(a)(1) (P.L. 565, 83rd Congress) "...for paying part of the cost of projects for research, demonstrations, training and traineeships, and projects for the establishment of special facilities and services, which, in the judgment of the Secretary of Health,

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[8/] A specific reminder of this is the book "Adult Blind - Psychological Diagnosis and Counseling," (1947) a publication of papers from a conference sponsored by the Office of Vocational Rehabilitation. Also recipient of support from the Office of Vocational Rehabilitation was a study by Mr. Edward Fitting on "Evaluation of Adjustment to Blindness," published by the American Foundation for the Blind (1954). Support was also given to the North Carolina Commission for the Blind to develop treatment procedures which would measure the progress of blind clients at rehabilitation centers (1952).

Education, and Welfare, hold promise of making a substantial contribution to the solution of vocational problems common to all or several states." There is provision under Sec. 4.(d) (1) "... for a National Advisory Council on Vocational Rehabilitation, consisting of the Secretary, for his designee who shall be Chairman, and twelve members appointed without regard to civil service laws by the Secretary. The twelve appointed members shall be leaders in fields concerned with vocational rehabilitation or in public affairs, and six of such twelve shall be selected from leading medical, educational or scientific authorities who are outstanding for their work in the vocational rehabilitation of physically handicapped individuals. Three of the twelve shall be persons who are themselves physically handicapped..."

Sec. 4. (d) (2) authorizes the Council "to review applications for special projects submitted to the Secretary under this section and recommend to the Secretary for grants under this section any such projects or any projects initiated by it which it believes show promise of making valuable contributions to the vocational rehabilitation of physically handicapped individuals."

The area of services to the blind has had representation on the Council from the beginning.[9] Projects, when received in the Vocational Rehabilitation Administration, are reviewed by appropriate staff members and often referred to expert consultants for review and evaluation. In order that a more thorough and scientific review may be made and the best technical evaluation and advice be available to the Council and the Commissioner, study sections have been established. These study sections review applications submitted to them and make recommendations. The recommendations are a major factor in influencing the Council in its final review of applications. There are four study sections in operation: the Sensory Study Section, the Psycho-Social Study Section, the Medical Study Section, and the General Research Study Section. Each section consists of a chairman, a number of officially appointed members who are nongovernmental experts, and an executive secretary who is a professional member of the staff. The chairman of each section is named by the Commissioner of Vocational Rehabilitation.

Projects concerned with blindness are reviewed by the appropriate study section, usually the Sensory Study Section, but frequently by the Psycho-Social Study Section or the General Study Section.

Like the National Advisory Council, the Sensory Study Section has had representation of persons who are professional workers in the field of blindness.[10]

It should be added that approval by the appropriate State Rehabilitation agency must be secured by applicants for any special project which involves either direct services to handicapped individuals or the establishment of

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9/ Peter J. Salmon, Executive Director, The Industrial Home for the Blind, Brooklyn, New York; Father Thomas J. Carroll, Director, Catholic Guild for All the Blind, Boston, Massachusetts.

10/ John W. Black, Ph.D., 3-1-63 to present; Richard G. Brill, Ed.D., 3-1-61 - 2-28-62; Emory L. Cowen, Ph.D., 3-1-64 - to present; Grant Fairbanks, Ph.D., 3-1-61 to present; Hans G. Furth, Ph.D., 3-1-62 to present; Richard E. Hoover, M.D., 3-1-61 to present; Henry A. Imus, Ph.D., 3-1-61 - 2-28-63; F.L. Lederer, M.D., 3-1-62 to present; Berthold Lowenfeld, Ph.D., 3-1-61 to present; D.C. MacFarland, Ph.D., 3-1-63 to present; S. Richard Silverman, Ph.D., 3-1-61 - 9-1962; John W. Stafford, Reverend, 3-1-61 - 12-1963; Chester A. Swinyard, M.D., 3-1-63 to present; Joseph M. Wepman, Ph.D., 3-1-61 - 2-29-64; George K. Yacorzynski, Ph.D., 3-1-61 to present.

facilities which will render direct services to handicapped individuals of that State.

Within the administrative framework described above the program of research and demonstration is carried on in three major dimensions which at best allow a free transition from one to another. The first dimension is that of straight experimentation or research. This has to do with the formulation of theories and testing of hypotheses. The second dimension is a primary phase of demonstrating how services may be improved through the findings of research. The third dimension is "selected demonstration," which is to say, demonstration of practices firmly established by prototypes derived from primary demonstration projects, but not yet firmly established in the minds of workers in the field. Selected demonstration constitutes one of the most important phases of the Vocational Rehabilitation Administration program of research and demonstration, since it is a practical way of making the benefits of the whole research program immediately available to people.

Selected demonstrations are reinforced by the provision of money for training programs in the rehabilitation field, which is a part of Section 4 of Public Law 565. This has made it possible to establish training courses in institutions of learning for the express purpose of preparing personnel to implement selected demonstrations.

Such in brief is the method of operation which has evolved during the course of nine years. The National Advisory Council on Vocational Rehabilitation has been a part of the program from the beginning, having been specified in the law. Study sections have been formed more recently. Hence only projects of later years have experienced the rigors of their examination. Earlier, when the program was small, it was not too difficult to secure the kind of expert opinion needed for a specific project, but as the idea of research and demonstration has taken hold in the field of rehabilitation and work for the blind, more formal routines have become a necessity.

The projects concerned with blindness in the research and demonstration program of the Vocational Rehabilitation Administration are identified in listings from page 15 to page 39. The specific data set forth are what experience has shown to be of greatest help to those who must familiarize themselves with the program. It will be seen that this includes a key listing on page 15, a listing of grantees alphabetically on page 28, a listing of project directors alphabetically on page 30, a table showing amounts of grants on page 31 and a bibliography of final reports on page 35. Following these data appear information supplied by other U. S. Government agencies.

The reader will note in the first listing on page 15 that numbers appear under the column headed "Grant Number." These are original Vocational Rehabilitation Administration grant numbers, used to identify projects throughout official documents, final reports and in the register of the Science Information Exchange. Gaps in the series (#1, 5, 36, and so on) occur because the intervening numbers were assigned to projects having to do with other fields than blindness. It should be further explained that from time to time grant numbers will be found in official documents and professional literature associated with the letters "RD" (Research and Demonstration) and "RC" (Research Contracts). In this article, these letters have been omitted for simplification. All projects treated are either research or demonstration. Those which are demonstrations are identified once in the listing which appears on page 15 and again are listed by number in a group on pages 11 and 12.

One further aid to orientation with respect to Vocational Rehabilitation Administration projects is the code in the listing on page 15 which shows the area of interest most characteristic of a particular project. These are not intended as hard and fast lines, but as an aid to understanding the principles and philosophy which govern the program.

The Vocational Rehabilitation Administration has four major interests with respect to blind people, through which projects flow. For the purposes of this article, these have been termed "interest categories," and have been coded.

The first Interest Category (Code I, Vocational) is directly concerned with the work blind people do. (Long ago Helen Keller said, "Step by step my investigation of blindness led me into the industrial world." And the final acid test of rehabilitation continues to be, "Is he or she working?").

This interest category is well illustrated with a project undertaken by Georgetown University to develop a system for teaching blind students to translate Russian and German as heard in broadcasts, designated RC-3 on page 27. In September 1960, an intensive program was activated by a Vocational Rehabilitation Administration grant as a joint effort of the University, the Vocational Rehabilitation Administration, and State Vocational Rehabilitation programs.

During the first two years, fifteen blind persons were trained in the Russian language by means of audio-lingual teaching method. From the outset of the Project, several Government agencies having need for skilled transcribers remained interested in the progress of the research.

Periodic evaluations of the blind trainee's progress during the first two years indicated that their level of language skill had increased sufficiently to warrant further training in the transcription of the Russian language. Of the original fifteen trainees, all but one are now engaged in advanced language training; eleven of them have been offered full-time employment in Government establishments.

Success of the first two years of research led to the inauguration of a second program designed to formalize the language-teaching methodology which had been developed during the initial research, and to investigate its application to other languages. Thirty candidates were selected on the basis of their demonstrated language aptitude. These were divided into two groups: one to study the Russian language, the other to study German.

It became clear during the study that the high level of language competence which could be achieved by blind persons trained by this method might be applied to other fields of language work and result in expanded vocational opportunities for highly trained blind linguists.

In view of the critical shortage of foreign language teachers throughout the country, the possibility of training blind teachers of sighted students was

was considered. Three graduates of the first program were given supervised practice teaching assignments at the Institute of Languages and Linguistics of Georgetown University. As instructors, these three were found to be highly competent with regard to language achievement, but disadvantaged by their lack of sight in the portrayal of sentence structure and other visual material to their students. Further intensive research is now under way to develop suitable visual aids which will obviate this difficulty.

Another area of language work in which this project has shown promise for the blind is the critical field of simultaneous interpretation. Persons qualified for this specialty are in short supply, due to the high degree of language facility required. Experience gained during the initial research indicates that blind persons may be able to develop the skill required for simultaneous interpretation more readily than sighted counterparts.

This entire project illustrates throughout realistic, working concepts of what blind people can do. Further, it stresses the need of intelligent and well-educated young blind people for work which they can respect.

The second Interest Category is the readying of blind people to work, by whatever means, be it therapy, education, counseling or any yet-undreamed-of process. This has been coded with five subdivisions:

> II-A, Prevocational-Centers; II-B, Prevocational-Processes; II-C, Prevocational-Processes-Optical Aids; II-D, Prevocational-Processes-Mobility Demonstrations; II-E, Prevocational-Processes-Testing. The following projects are illustrative:

II-A, Prevocational-Centers. Oklahoma State University undertook a project (No. 672) entitled "Rehabilitation Centers for the Blind - An Architectural Guide." This was conceived as a supplement or companion pamphlet for "Rehabilitation Center Planning," a successful earlier publication by the same authors, Dr. F. Cuthbert Salmon, and Mrs. Christine Salmon. The purpose was to augment this earlier work with material for use in planning self-contained, detached or semi-detached facilities for the blind. Architectural conclusions and the establishment of criteria were based on a careful review of existing literature, consultations with workers in the rehabilitation of the blind, and observation of rehabilitation in progress.

The guide is now completed and in process of publication. It is addressed "Specifically and mutually to two groups of people: (1) architects, and (2) people who have responsibilities with respect to the building of centers for the rehabilitation of blind people."

The text attempts to put down as simply as possible what the two groups need to know in common and agree upon to create a center for blind people.

II-B, Prevocational Processes. (Readying, Adjustment, Therapy.) This interest category is well illustrated by a project undertaken and carried through to conclusion by the Industrial Home for the Blind under the title "Study and Development of a Manual on Rehabilitation Services for the Deaf-Blind," (No. 96), followed subsequently by another project entitled "Establishment of Regional Rehabilitation Services for Deaf-Blind Persons," (1004).

These projects undertook the study of the congenitally deaf who have lost sight; of the congenitally blind who have lost hearing; those who have lost both sight and hearing in maturity and the differences in rehabilitation techniques for each. Factors explored were "essential educational changes to assist in maintaining imagery and vocabulary essential to social integration; importance of impressions and imagery established through remaining faculties; touch, taste, smell; physical, emotional and psychological effects of deaf-blindness and what rehabilitation skills may minimize the impact of the double handicap." Also brought under scrutiny was the etiology of the deaf-blind.

A successful conclusion of the first element (No. 96) of this study is illustrated in the volumes listed in the bibliography on page 35.

A continuity of effort and performance in the new phase (No. 1004) gives every indication that this also will be productive.

II-C, Prevocational-Processes-Optical Aids designates a very important aspect of the Vocational Rehabilitation Administration program; namely, Optical Aids Clinics.

It was a special and somewhat daring departure to support these clinics, but a measure which may well have already done more good than any other single idea introduced through the entire research and demonstration program for the visually handicapped.

In essence the selected demonstrations called optical aids clinics undertook the extremely difficult task of fitting all kinds of lenses, new and old, to the infinite variations in eye defects, involving acuity, fields, quadrants, color perception, muscular imbalance, capriciousness of function and equally variable psychological problems — psychological problems not only in patients but also in practitioners who fit corrective glasses. Twenty-three such clinics were approved.11/

The reports on these clinics, some of which have been published, give an ample guarantee that these projects have penetrated one of the most neglected and distracting elements in the field of work for the blind; namely, the unusual needs of the partially blind, who may be called with equal validity the partially seeing. The long-standing practice of dealing with their problems through methods contrived for the totally blind has been the cause of much trouble both for them and those who have undertaken to help them. The modern optical aids clinic, combining necessary skills to measure residual sight, shows every likelihood of re-defining the problems of this rather large group of visually handicapped people.

II-D, Prevocational-Processes-Mobility Demonstrations designates a group of projects having perhaps as great a potential, though of a different kind for the totally blind.

The purpose of these projects is to re-emphasize the basic mission of work for the blind; namely, to find out how things are done without sight and

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11/ Nos. 226, 235, 263, 276, 277, 348, 398, 399, 400, 416, 498, 515, 525, 563, 570, 590, 617, 701, 852, 876, 1241, 1327, 1344.

make these methods available to blind people. The mobility projects do this by demonstrating to the field validated mobility skills which have been developed at centers specializing in these techniques. Nine such projects have been activated.[12]

II-E, Prevocational-Processes-Testing includes a group of projects which are perhaps closer to "hard core" science than are most social science projects, and require no great elaboration. This group is very well illustrated by a project at Boston University titled "The Construction and Evaluation of a Diagnostic Test of Grade Two Braille." (No. 1383). The purpose of this project is to construct and evaluate a diagnostic test to isolate and categorize misperceptions of Grade Two Braille symbols.

The third major interest (Code III-Equipment) is concerned with the instruments of whatever sort which help to overcome or circumvent the handicap of blindness.

This category of interest has long been at the perplexing center of what workers for the blind have considered research to overcome the handicap of blindness. From the 18th Century and even earlier, writings of the subject of blindness have been replete with descriptions of various artifacts and contrivances to overcome the handicap of blindness. As has often been pointed out, many of these have engendered no enthusiasm except in the individual or coterie whose ingenuity produced them.

An important effort to surmount these difficulties and join the scientific spirit with practical work for the blind is the previously mentioned contract between the Vocational Rehabilitation Administration and the Massachusetts Institute of Technology (No. RC-8) to investigate and develop new and improved sensory, orthotic and prosthetic aids.

This is an effort at consolidating strength where competence and a genuine interest in the subject of blindness were found. Before the Vocational Rehabilitation Administration contract, which began in 1961, the faculty of the Institute had carried on investigative seminars on its own initiative, which were subsequently supported for a time by the American Foundation for the Blind. The purpose of the Vocational Rehabilitation Administration grant was to confirm this effort by supporting three principal investigators, full professors in the mechanical engineering department, a number of graduate student research assistants in the Engineering Projects Laboratory, as well as underwriting the work of non-salaried full-time students engaged in related design and laboratory projects and theses.

Current work to be reported in 1964 includes: automatic braille translation and presentation, punched tape-to-braille transducers, high speed braille embossing system, directional photoelectric probe with tactile output, collapsible cane for blind travellers, inertial guidance device for blind travellers, and certain more highly technical subjects.

12/ Nos. 1168, 1169, 1179, 1228, 1325, 1328, 1342, 1346, 1415.

This project has demonstrated a realistic grasp by the highly trained scientists of the fundamental nature of blindness as a human problem, especially the very personal quality of the needs growing out of the handicap.

This unusual insight was very well expressed by Professor Thomas B. Sheridan as follows: "Raymond Loewy has been credited with saying that a locomotive is an example of something easy to re-design; a needle is much more difficult to re-design. The distinction is, of course, between something that operates more or less by itself, independent of man; and something that is intimately connected to him, as a hand tool might be. I would place the cane in this latter category."[13]

The fourth major interest (Code IV-Personnel) might well have been put first, but last will do as well because it permeates all phases of what we call work for the blind. This interest is in people who work for the blind, and with them, and also everyone who by design or accident comes into contact with them, affecting their environment.

This interest category is one which many people feel has the greatest potential for improvement of work with the blind. Not a great many Vocational Rehabilitation Administration projects have been undertaken in this area, but they have been widespread in influence and thorough-going. One such was the first project undertaken under the revision of the Vocational Rehabilitation Act in 1954, "A Survey of Professional and Administrative Personnel in Work for the Blind." (No. 1.) This was undertaken as a joint effort with the American Foundation for the Blind and the Department of Labor. It brought to view a hitherto unformed picture of the characteristics of workers for the blind, including educational background, salaries, percentage with visual disability, and so forth.

A very important project jointly sponsored by the American Foundation for the Blind and the Vocational Rehabilitation Administration was the International Congress on Technology and Blindness held in New York City in 1962, the proceedings of which are listed in the Vocational Rehabilitation Administration Bibliography on page 38. (No. 634.)

Finally, the enrichment of the knowledge of persons working with blind people stands to gain a great deal from a grant to the American Association of Workers for the Blind (No. 869) to develop a solution to the problem of preserving and locating literature concerning blindness. A unique aspect of this project is the development of a bibliography in card catalog form to be released in 1964 with the hope that it will encourage bibliophiles among workers for the blind to preserve the literature and knowledge about the literature, keeping their own catalogs up-to-date and exchanging information about them.

Clustered in these four major divisions and five subdivisions are 96 projects concerned with blindness supported by the Research and Demonstration program of the Vocational Rehabilitation Administration as of December 31, 1963.

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[13] Techniques of Information Generation: The Cane--Proceedings of the International Congress on Technology and Blindness. Published 1963.

It is not the purpose of this article to describe fully all Vocational Rehabilitation projects, which would be impossible in any case, or to evaluate them. This can only be done over a long period of time as their effects are observed in the lives of blind people. However, it is hoped the information furnished in this article will lead to a better over-all view of what is going forward in the way of Federal support for research concerning blindness, to easier communication among interested persons and to an awareness of reports available. There is very little doubt that the most valuable accomplishment of all Federally supported research in this field is the brain power thereby preoccupied with problems of blindness. The ensuing pages attempt to give an elementary chart of this brain power, where it lies and what it is doing.

Of certain things we must all beware, and concerning these cannot admonish ourselves too often. There is now more than ever a need for inner observation of the relationship between the blind and the sighted rather than a regard solely for outer manifestations. We should attempt to look at the mainsprings of behavior toward the blind, and the underlying causes in individuals and social groups that allow layers of prejudice to continue to present an image of blindness in stereotypical fashion.

The complexities of our society need examination through research in the dynamics of human behavior. Too little research has been accomplished into the operational working of services for the blind with an accompanying avoidance of the rapid character of social change. All legislation is more experimental than finite. This concept should engender the continuing role of research in blindness on biases and distortions in employment, in individual and group attitudes and in education and training.

If the structure and functions of rehabilitation research in blindness cling too closely to the needs of the age when they originated, and if the interests which resist change become too powerful, services for the blind will not meet the needs of new situations. There is still a clash between social changes and institutional rigidities. The social and other professional services depend to an increasing extent on the technological and "hardware" achievements of much of our research. Professor Titmuss of the London School of Economics states, "But the question that also needs to be asked of professional associations is whether they are prepared to assume greater social responsibilities to match their added knowledge and the power that accompanies it,"14/ and A.N. Whitehead said, "Each profession makes progress, but it is progress in its own groove."15/

14/ Essays on "The Welfare State," George Allen and Unwin, Ltd., 1958.
15/ "Science in the Modern World," 1926, pp. 275-6.

VOCATIONAL REHABILITATION ADMINISTRATION RESEARCH AND DEMONSTRATION PROJECTS

Listed by Grant Number, Grantee, Project Director and Purpose

GRANT NO.	PROJECT IDENTIFICATION	GRANTEE AND PROJECT DIRECTOR	PURPOSE AND INTEREST CATEGORY*
1.	Survey of Professional and Administrative Personnel in Work with the Blind	American Foundation for the Blind 15 West 16th Street New York 11, N. Y. Alexander F. Handel	To study the functions, salaries and characteristics of persons who work with the blind in order to standardize job duties and qualifications. (IV)
5.	Greenhouse and Nursery Operation at the Georgia Academy for the Blind	Georgia Division of Vocational Rehabilitation 129 State Office Bldg. Atlanta, Georgia F. G. Nelms	To expand employment opportunities for the blind by determining and demonstrating the greenhouse and nursery jobs that blind people can be trained to do. (I)
31.	Evaluation of Music Therapy as a Part of the Curriculum of an Adjustment Center for the Blind	Kansas State Department of Welfare State Office Building Topeka, Kansas Robert Unkefer	To test the assumption that music may be appropriately added to the adjunctive therapies utilized in the controlled rehabilitation process for the adult blind. (II-B)
46.	Development of a Sight Substitute for the Blind	Site, Inc. 723 Frazier Court Topeka, Kansas M. A. McCollom	To develop through electronics and other means practical sight substitutes (obstacle detector). (III)
84.	Adjustment Center for the Blind (Regional)	Minneapolis Society for the Blind 1936 Lyndale Ave., So. Minneapolis, Minn. Byron M. Smith	To establish a regional facility to provide adjustment training and workshop services to blind persons from a number of States. (II-A)
90.	Diversified Farming Activities	Cincinnati Association for the Blind 1548 Central Parkway Cincinnati, Ohio Jules D. Williams	To increase agricultural work opportunities for the blind by demonstrating the diversity of the farming activities which can be successfully performed by the blind. (I)
96.	Study and Development of a Manual on Rehabilitation Services for the Deaf-Blind	Industrial Home for the Blind 57 Willoughby Street Brooklyn, New York George E. Keane	To define successful methods used in the rehabilitation of the deaf-blind; and develop a manual and guide which can be used nationally in setting up rehabilitation services and identifying job opportunities for the deaf-blind. (II-B)

*Code of Interest Category: I, Vocational; II-A, Prevocational-Centers; II-B, Prevocational-Processes; II-C, Prevocational-Processes-Optical Aids; II-D, Prevocational-Processes-Mobility Demonstrations; II-E, Prevocational-Processes-Testing; III, Equipment; IV, Personnel.

VOCATIONAL REHABILITATION ADMINISTRATION RESEARCH AND DEMONSTRATION PROJECTS (Continued)

GRANT NO.	PROJECT IDENTIFICATION	GRANTEE AND PROJECT DIRECTOR	PURPOSE AND INTEREST CATEGORY
111.	Correlating Services Available to Farmers	Alabama Institute for the Deaf and Blind Post Office Drawer 268 Talladega, Alabama B. Q. Scruggs	To demonstrate the benefits of coordinating services of the State vocational rehabilitation agency and the agricultural agencies in rehabilitating the blind farmer. (I)
113.	Evaluation of the Sensitive Cane	Franklin Institute 20th and the Parkway Philadelphia, Penna.	To test the value of an electronic cane as an aid in assisting blind persons in independent travel. (III)
132.	Study of Unemployed Blinded and Demonstration of the Effectiveness of the Coordinated Use of Community Resources in the Total Rehabilitation of World War II and Korea Service-Connected Blinded Veterans	Blinded Veterans 3408 Wisconsin Ave., N. W. Washington, D. C. Donald E. Elsburgh	To facilitate the vocational rehabilitation of unemployed blinded veterans of World War II and Korea by demonstrating the effect of maximum coordinated use of community resources. (II-B)
136.	Development of a Functional Code for Muscular-Skeletal and and Neuro-Muscular Disabilities	Association for the Aid of Crippled Children 345 East 46th Street New York, New York Leonary W. Mayo	To explore the feasibility of developing a statistical code for presenting functional limitations of muscular-skeletal and neuromuscular disorders. (II-E)
157.	Improving and Accelerating the Process of Raising the Hearing of Blinded Persons to a Greater Degree of Usefulness	Cleveland Society for the Blind 1958 East 93rd Street Cleveland 6, Ohio Cleo B. Dolan	To explore the extent to which the hearing of newly blinded persons can be brought to the highest degree of usefulness. (II-B)
188.	An Investigation of Vocational Success with the Blind	Purdue Research Foundation Purdue University Lafayette, Indiana Joseph Tiffin, Ph.D.	To investigate through resources of a university the potentialities and abilities which are related to the vocational and occupational success of the blind. (I)
226.	Study of the Role of Optical Aids Clinic in Vocational Rehabilitation of Near Blind	Washington University Skinker and Lindell Blvds. St. Louis, Missouri Benjamin Milder, M.D.	Optical Aids Clinic (See page 11). (II-C)

VOCATIONAL REHABILITATION ADMINISTRATION RESEARCH AND DEMONSTRATION PROJECTS (Continued)

GRANT NO.	PROJECT IDENTIFICATION	GRANTEE AND PROJECT DIRECTOR	PURPOSE AND INTEREST CATEGORY
235.	Optical Aids Clinic	Georgia Division of Vocational Rehabilitation 129 State Office Bldg. Atlanta, Georgia A. P. Jarrell	Optical Aids Clinic (See page 11). (II-C)
263.	Optical Aids Clinic	Indiana University Medical Center Indianapolis 7, Indiana Fred M. Wilson, M.D.	Optical Aids Clinic (See page 11). (II-C)
276.	Optical Aids Clinic	Pennsylvania Working Home for the Blind 36th & Lancaster Ave. Philadelphia, Penna. Neale R. Curtin	Optical Aids Clinic (See page 11). (II-C)
277.	Optical Aids Clinic	Oklahoma State Division of Vocational Rehabilitation 1212 North Hudson Oklahoma City 3, Okla. Robert W. King, M.D.	Optical Aids Clinic (See page 11). (II-C)
282.	Standardization of a Performance Scale for Adult Blind	Illinois Institute of Technology Technology Center Chicago 16, Illinois Harriet C. Shurrager, Ph.D.	To standardize a performance scale to improve the assessment of the aptitudes and capacities of blind adults. (II-E)
304.	A Comparison of Effectiveness of a 16-week Training Program with a 12-week Program in the Rehabilitation of the Blind Adults	Catholic Guild for All the Blind 770 Centre Street Newton 58, Mass. James Sullivan	To compare the effectiveness of a 16-week Training Program with a 12-week training program in the rehabilitation of blinded adults. (II-A)
315.	Research and Demonstration Project in the Demonstration of a Pilot Program of Speech and Aural Rehabilitation Services for Hard-of-Hearing Blind Persons.	Industrial Home for the Blind 57 Willoughby Street Brooklyn 1, New York George E. Keane	To identify the travel and vocational problems of the hard-of-hearing blind persons and develop a pilot program of aural rehabilitation services for this group. (II-B)

VOCATIONAL REHABILITATION ADMINISTRATION RESEARCH AND DEMONSTRATION PROJECTS (Continued)

GRANT NO.	PROJECT IDENTIFICATION	GRANTEE AND PROJECT DIRECTOR	PURPOSE AND INTEREST CATEGORY
346.	Components and Correlates of Attitudes toward Blindness	Columbia University, New York School of Social Work 9 East 90th Street New York 28, N. Y. Martin Whiteman, Ph.D.	To study through techniques of qualified psychologists, the nature and determinants of attitudes of the sighted toward blindness and the effects of these attitudes on blind people. (IV)
348.	Optical Aids Clinic	Grace-New Haven Community Hospital 789 Howard Avenue New Haven 4, Conn. C. Phillips, M.D.	Optical Aids Clinic (See page 11). (II-C)
351.	Educational Film - Regional Rehabilitation Center for the Blind	Minneapolis Society for the Blind 1936 Lyndale Ave., So. Minneapolis 5, Minn. Henry A. Daum	To create by an educational film a broader and more informed understanding of the program of the Regional Rehabilitation Center. (II-A)
352.	Beauty for the Sighted and the Blind	American Foundation for the Blind 15 West 16th Street New York 11, N. Y. M. Robert Barnett A. H. Eaton (deceased)	To explore the morale building-factors of tactile access to collections of objects in museums. (II-B)
378.	A Study of Administrative Methods and the Responses of Blind and Sighted Populations	N. C. Commission for the Blind P. O. Box 2658 Raleigh, N. Carolina	To develop improved methods for measuring the vocational preference of blind persons. (IV)
398.	Optical Aids Clinic	Rhode Island Association for the Blind 39-40 Arcade Building Providence 3, R. I. Mrs. H. W. Worden	Optical Aids Clinic (See page 11). (II-C)
399.	Optical Aids Clinic	Vanderbilt University Hospital Nashville, Tennessee R. O. Cannon, M.D.	Optical Aids Clinic (See page 11). (II-C)
400.	Optical Aids Clinic (Low Vision Clinic for Advancing Optical Aids)	Cleveland Society for the Blind 1958 East 93rd Street Cleveland 6, Ohio Cleo B. Dolan	Optical Aids Clinic (See page 11). (II-C)
416.	Optical Aids Clinic	Utah Commission for the Blind 309 - 315 East 1st. So. Salt Lake City 11, Utah Donald W. Perry	Optical Aids Clinic (See page 11). (II-C)

VOCATIONAL REHABILITATION ADMINISTRATION RESEARCH AND DEMONSTRATION PROJECTS (Continued)

GRANT NO.	PROJECT IDENTIFICATION	GRANTEE AND PROJECT DIRECTOR	PURPOSE AND INTEREST CATEGORY
428.	Time and Cost Study of the Vocational Rehabilitation Program for the Blind in a Rural State	Montana State Department of Welfare 10th and North Ewing Helena, Montana Theodore Carkulis	To identify, define and evaluate factors affecting the vocational rehabilitation of blind persons in a predominantly rural State. (I)
433.	Digital Computer Enciphering of English into Braille	Wayne State University Detroit 2, Michigan W. Givens, Ph.D.	To develop an economical method for the mass translation of ink print into Braille through the use of electronic computers. (III)
439.	National Personnel Referral Service	American Foundation for the Blind 15 West 16th Street New York 11, N. Y. Alexander F. Handel	To develop more effective procedures for attracting qualified personnel in work for the blind through a register of personnel at a National agency. (IV)
442.	Rehabilitation Ophthalmology	Georgetown University Medical Center 37th & O Streets, N. W. Washington, D. C. J. F. O'Rourke, M.D.	To develop a teaching program in a University hospital which provides residents in ophthalmology with background data for clinical experience in problems of rehabilitating the blind. (IV)
475.	Industrial Homework for the Blind	South Dakota Services to the Blind and Visually Handicapped State Capitol Bldg. Pierre, South Dakota Howard H. Hanson	To test and improve, and to extend to other parts of the Nation special rehabilitation programs that have been developed for service to the disabled homebound. (I)
498.	Optical Aids Clinic	University of Texas Southwestern Medical School 5323 Harry Hines Blvd. Dallas 35, Texas C. W. Browning, M. D.	Optical Aids Clinic (See page 11). (II-C)
510.	Identifying and Teaching Cues for Traveling in the Blind	C. W. Shilling Auditory Research Center 340 Long Hill Road Groton, Connecticut J. D. Harris, Ph.D.	From the study of effective blind travelers, to identify and develop ways to train novices in the use of auditory cues in relation to other cues and aids. (II-B)
515.	Optical Aids Clinic	University of Miss. Medical Center 2500 N. State Street Jackson, Mississippi S. B. Johnson, M. D.	Optical Aids Clinic (See page 11). (II-C)

VOCATIONAL REHABILITATION ADMINISTRATION RESEARCH AND DEMONSTRATION PROJECTS (Continued)

GRANT NO.	PROJECT IDENTIFICATION	GRANTEE AND PROJECT DIRECTOR	PURPOSE AND INTEREST CATEGORY
525.	Optical Aids Clinic	McCook Memorial Hospital 14 Atlantic Street Hartford, Connecticut L. H. Harris, M. D.	Optical Aids Clinic (See page 11). (II-C)
539.	Correlating Services Available to Farmers	Virginia Commission for the Visually Handicapped 3003 Parkwood Ave. Richmond 21, Va. D. C. MacFarland, Ph.D.	To correlate services available to blind farmers. (I)
556.	Development of Basic Research Materials and a Manual in the Use of Recording Textbooks	Recording for the Blind 121 East 58th Street New York 22, N. Y. Burnham Carter	To identify methods to improve the efficiency with with which recorded textbooks, monographs and other recorded material are used by the blind. (II-B)
563.	Optical Aids Clinic	Mobile General Hospital 850 St. Anthony St. Mobile, Alabama Eugene de Juan, M.D.	Optical Aids Clinic (See page 11). (II-C)
567.	Regional Training Center for Piano Tuner Technician	Alabama Institute for Deaf and Blind, Adult Blind Department P. O. Drawer 17 Talladega, Alabama E. H. Gentry	To establish a regional facility to provide piano tuner technician training for blind persons from a number of States. (I)
570.	Optical Aids Clinic	West Virginia Division of State Capitol Building Charleston, West Va. Earl W. Wolfe	Optical Aids Clinic (See page 11). (II-C)
587.	Tactual Symbols	American Printing House for the Blind 1839 Frankfort Ave. Louisville 6, Ky. C. Y. Nolan, Ph.D.	To investigate the ability of blind persons to discriminate, recognize and recall tactual symbols and other aids as a means of increasing the effectiveness of graphs, charts and maps for the blind. (III)
590.	Optical Aids Clinic for Individuals Who Are Legally Blind	Nevada State Welfare Department Bureau of Services to the Blind P. O. Box 1331 John Ruiz	Optical Aids Clinic (See page 11). (II-C)

VOCATIONAL REHABILITATION ADMINISTRATION RESEARCH AND DEMONSTRATION PROJECTS (Continued)

GRANT NO.	PROJECT IDENTIFICATION	GRANTEE AND PROJECT DIRECTOR	PURPOSE AND INTEREST CATEGORY
617.	Optical Aids Clinic	University of Miami, School of Medicine Coral Gables, Fla. Edward W. D. Norton, M. D.	Optical Aids Clinic (See page 11). (II-C)
633.	Establishment of the Relative Productivity of Techniques for Placing Blind Persons in Employment	Mississippi Division of Rehabilitation for the Blind P. O. Box 1669 Jackson, Mississippi Raymond D. Williams	To study improved methods for placing blind and partially seeing persons in competitive employment. (I)
634.	An International Survey and Analysis of Technical Devices Designed for the Education, Rehabilitation and Personal Aid of Blind Persons	American Foundation for the Blind 15 West 16th Street New York 11, N. Y. M. Robert Barnett	An international survey and analysis to gather and review information on technical devices used in this country and abroad designed for the education, rehabilitation and personal aid of blind persons, and to disseminate and exchange such information both nationally and internationally. (III)
654.	The Development of Devices for Blind Persons in Their Occupations and Daily Living	Maryland Workshop 2901 Strickland Street Baltimore 23, Md. Wm. S. Ratchford	To develop and adapt tools and other devices for use by blind persons in their occupations and daily living. (III)
670.	Modification of the Raven Matrices for Presentation to the Blind	Texas Technological College Lubbock, Texas R. P. Anderson, M.D.	To develop a tactual adaptation of the Raven Progressive Matrices for use in measuring the intellectual capacity of the Blind. (II-E)
672.	Rehabilitation Centers for the Blind, an Architectural Guide	Oklahoma State Univ. College of Engineering Stillwater, Oklahoma F. Cuthbert Salmon	To establish suitable architectural criteria for the design of rehabilitation centers for the blind. (II-A)
701.	Optical Aids Clinic	Presbyterian Eye, Ear and Throat Charity Hospital Baltimore, Maryland R. E. Hoover, M.D.	Optical Aids Clinic (See page 11). (II-C)
740.	Manual Arts for the Blind	University of Illinois Industrial Education Division Urbana, Illinois Robert A. Tinkham	To evaluate and develop instructional materials for training the blind in selected shop areas, such as woodworking, metalworking, electricity and home mechanics. (I)

VOCATIONAL REHABILITATION ADMINISTRATION RESEARCH AND DEMONSTRATION PROJECTS (Continued)

GRANT NO.	PROJECT IDENTIFICATION	GRANTEE AND PROJECT DIRECTOR	PURPOSE AND INTEREST CATEGORY
779.	Conference to Explore How Blind Persons Can Best Meet the Needs of the Piano Industry	Perkins School for the Blind 175 North Beacon St. Watertown 72, Mass. Edward J. Waterhouse, D. Lit.	To explore the employment opportunities and training needs of the piano industry in the Northeast States. (I)
788.	To Develop and Test an Operational Statistical Code	Association for the Aid of Crippled Children 345 East 46th Street New York 17, N. Y. Maya Riviere, D. Phil.	To develop and test an operational statistical code designed to record all types of physical impairments. (II-E)
799.	Regional Rehabilitation Center	San Francisco Lighthouse for the Blind 1097 Howard Street San Francisco 3, Calif. Mrs. Frances Ross	To provide a comprehensive program of rehabilitation for the blind and deaf-blind. (II-A)
835.	Adjustment of Blind Persons	Graduate School of Social Work Pittsburgh, Penna. Irving F. Lukoff	To analyze data already collected in a previous study as related to factors of social attitude which affect satisfactory adjustment to blindness. (II-B)
852.	Optical Aids Clinic	Sinai Hospital of Detroit Detroit 35, Michigan Morris J. Mintz, M.D.	Optical Aids Clinic (See page 11). (II-C)
869.	Development of a Solution to the Problem of Preserving and Circulating Literature	American Association of Workers for the Blind 1511 K Street, N.W. Washington, D. C. Isabella S. Diamond	To meet the recurrent problem with respect to an existing body of knowledge concerning blindness by the development of a system of location and identifying collections of books and rare items. (IV)
871.	Mobility Research Planning Conference	American Foundation for the Blind 15 West 16th Street New York 11, N. Y. John K. Dupress	To conduct a series of conferences of selected authorities in the field of blindness in order to identify researchable areas in mobility aids and training for the Blind. (II-B)
876.	Clinic for Fitting Optical Aids for the Near Blind	Arkansas Enterprises for the Blind 2811 Fair Park Blvd. Little Rock, Arkansas J. B. Cross, M.D.	Optical Aids Clinic (See page 11). (II-C)

VOCATIONAL REHABILITATION ADMINISTRATION RESEARCH AND DEMONSTRATION PROJECTS (Continued)

GRANT NO.	PROJECT IDENTIFICATION	GRANTEE AND PROJECT DIRECTOR	PURPOSE AND INTEREST CATEGORY
898.	Standardization of Perkins-Binet Tests	Perkins School for the Blind 175 North Beacon St. Watertown 72, Mass. Carl J. Davis	To adapt the Stanford-Binet Intelligence scale for legally blind children and adults. (II-E)
915.	Professional Counseling and Placement Service	N. Y. Association for the Blind 111 East 59th Street New York 22, N. Y. Allan W. Sherman (deceased)	To demonstrate the feasibility and effectiveness of specialized counseling, placement, and relocation services for blind persons trained in the several professions. (II-B)
970.	Planning for Program of Statewide Mobility Services for the Visually Handicapped	Society of St. Vincent de Paul 4140 Lindell Blvd. St. Louis 8, Missouri T. J. O'Donnell, MSW	To study the feasibility of establishing a State-wide program of mobility services for the visually handicapped. (II-D)
1004.	Regional Rehabilitation Services for Deaf-Blind Persons	Industrial Home for the Blind 57 Willoughby Street Brooklyn 1, New York Peter J. Salmon	To demonstrate the values of a regional rehabilitation service for deaf-blind persons, techniques through which State and local agencies may cooperate for the benefit of deaf-blind clients and a comprehensive service which will maximize the development of their rehabilitation potential. (II-B)
1018.	Corneal Replacement with Optical Prosthesis	Eye-Bank for Sight Restoration 210 East 64th Street New York 21, N. Y. M. Martinez, M.D.	To develop optical prothesis for corneal replacement. (II-B)
1082.	Mobility Training for the Blind	Catholic Charities 126 N. Desplaines St. Chicago 6, Illinois Marian C. Quinn	To test the validity of mobility methods used with adults in a teaching program for children. (See page 11). (II-B)
1094.	Correlates of Adjustment to Visual Disability	University of Wichita 1845 Fairmont Wichita 8, Kansas Robert J. Teare, Ph.D. Dr. May H. Palacios	To develop correlates of adjustment to visual disability in relation to real life situations. (II-E)
1107.	A Mobility Aid for the Blind to Supplement the Cane	Stanford Research Institute 333 Ravenwood Ave. Menlo Park, Calif. James C. Bliss, Ph.D.	To develop a mobility aid for the blind to supplement the cane. (III)

VOCATIONAL REHABILITATION ADMINISTRATION RESEARCH AND DEMONSTRATION PROJECTS (Continued)

GRANT NO.	PROJECT IDENTIFICATION	GRANTEE AND PROJECT DIRECTOR	PURPOSE AND INTEREST CATEGORY
1167.	Application of Programmed Learning to Braille Instruction	University of Wisconsin Madison 6, Wisconsin Rick Heber, Ph.D.	To apply programmed learning to braille instruction. (II-E)
1168.	Itenerant Instruction in Orientation and Mobility for Blind Adolescents in Public Schools	Alameda County School Department 224 West Winton Ave. Hayward, California Daniel E. Johnson, Ph.D.	Mobility Project. (See page 11). (II-D)
1169.	A Project to Demonstrate the Value of Mobility Instruction as a Technique to Motivate the Blind	Mecklenberg County Association for the Blind 704 Louise Avenue Charlotte, N. C. Arthur M. Dye, Jr.	Mobility Project. (See page 11). (II-D)
1179.	Community Program of Orientation and Mobility Services for the Blind in Missouri	Society of St. Vincent de Paul 4140 Lindell Blvd. St. Louis 8, Missouri Thomas J. O'Donnell, MSW	Mobility Project. (See page 11). (II-D)
1198.	Pilot Demonstration of the Use of the British Tape Program	Virginia Commission for the Visually Handicapped 3003 Parkwood Ave. Richmond 21, Va. D. C. MacFarland, Ph.D.	To demonstrate the use of British tape recording apparatus. (III)
1228.	Education Program to Maximize Independent Mobility of Blind Children in Public Schools at the Elementary, Junior High and High School Levels	Metropolitan Society for the Blind 1401 Ash Street Detroit 8, Michigan McAllister Upshaw	Mobility Project. (See page 11). (II-D)
1241.	Optical Aids Clinic	Eye Research Foundation of Bethesda 4806 Rugby Avenue Bethesda, Maryland William N. Hart, M.D.	Optical Aids Clinic. (See page 11). (II-C)
1325.	Systematic Teaching of Mobility to Blind People	Minneapolis Society for the Blind 1936 Lyndale Ave., So. Minneapolis, Minn. Melvin E. Satebak	Mobility Project. (See page 11). (II-D)

VOCATIONAL REHABILITATION ADMINISTRATION RESEARCH AND DEMONSTRATION PROJECTS (Continued)

GRANT NO.	PROJECT IDENTIFICATION	GRANTEE AND PROJECT DIRECTOR	PURPOSE AND INTEREST CATEGORY
1327.	Low Vision Clinic for the Visually Handicapped	Hawaii State Center for the Blind and Visually Handicapped P. O. Box 339 Honolulu, Hawaii Mrs. Yasuloo Takemoto	Optical Aids Clinic. (See page 11). (II-C)
1328.	Mobility and Orientation Instruction of Blind People	Arkansas Enterprises for the Blind 2811 Fair Park Blvd. Little Rock, Arkansas Roy Kumpe	Mobility Project. (See page 11). (II-D)
1330.	To Determine the Impact on Rehabilitation of the Blind of a Psychiatrist in the Key Role in a Rehabilitation Center for the Blind	Catholic Guild for All the Blind 770 Centre Street Newton 58, Mass. Thomas E. Caulfield, M.D.	Psychiatrist in the Key Role in a Rehabilitation Center for the Blind. (II-A)
1336.	Trade School as Regional Facility for Training Blind Students	North Dakota School of Science Wahpeton, N. Dakota James A. Horton	To demonstrate the effectiveness of a vocational training program for blind persons in a well organized trade school set up on a regional basis. (I)
1342.	Mobility and Orientation Instruction of the Blind	South Dakota Services to the Blind and Visually Handicapped State Capitol Bldg. Pierre, South Dakota Leroy C. Larsen	Mobility Project. (See page 11). (II-D)
1344.	Optical Aids Clinic	Marquette University School of Medicine 561 North 15th Street Milwaukee 3, Wis. John Hitz, M.D.	Optical Aids Clinic. (See page 11). (II-C)
1346.	Mobility and Orientation of Blind Persons	Rochester and Monroe Association for the Blind 439 Monroe Avenue Rochester 7, New York James E. Ryder	Mobility Project. (See page 11). (II-D)

VOCATIONAL REHABILITATION ADMINISTRATION RESEARCH AND DEMONSTRATION PROJECTS (Continued)

GRANT NO.	PROJECT IDENTIFICATION	GRANTEE AND PROJECT DIRECTOR	PURPOSE AND INTEREST CATEGORY
1382.	The Visual Response of the Partially Seeing	Eye Research Foundation of Bethesda 4806 Rugby Avenue Bethesda, Maryland Robert H. Peckham, Ph.D.	To test by a combined ophthalmology, bio-psychological and teaching approach the visual response of the partially seeing. (II-E)
1383.	A Pilot Test of the Construction and Evaluation of a Diagnostic Test of Grade 2 Braille Misperceptions	Boston University 700 Commonwealth Avenue Boston 15, Mass. Leo F. Hanley	To test the construction and evaluation of a diagnostic test of grade two braille misperceptions. (II-E)
1406.	A Comprehensive Planning Study for Mobility Instruction in the Schools of Los Angeles County	Los Angeles State College Foundation 5151 State College Dr. Los Angeles 32, California F. E. Lord, Ph.D.	To develop a comprehensive planning study for mobility instruction in the schools of Los Angeles County. (II-B)
1407.	International Research Information Service (IRIS)	American Foundation for the Blind 15 West 16th Street New York 11, N. Y. Milton D. Graham, Ph.D.	To develop a system of data retrieval of scientific information concerning blindness. (IV)
1412.	Production of Haptic Intelligence Scale Test Kits with Manual and Record Forms	Illinois Institute of Technology Center Chicago 16, Illinois Harriett C. Shurrager, Ph.D.	To produce Haptic (tactile) Intelligence Scale Test kits with manual and record forms. (II-E)
1415.	Establishment of a Systematic Program of Mobility Instruction for Blind Persons in the District of Columbia	D. C. Department of Vocational Rehabilitation 819 Ninth Street, N.W. Washington, D. C. 20001 Stephen A. Gambaro	Mobility Project. (See page 11). (II-D)
1420.	1964 World Assembly of the World Council for the Welfare of Blind	American Foundation for Overseas Blind 22 West 17th Street New York 11, N. Y. Eric T. Boulter	An international conference to develop rapport in the field of work with the blind. (IV)

VOCATIONAL REHABILITATION ADMINISTRATION RESEARCH AND DEMONSTRATION PROJECTS (Continued)

GRANT NO.	PROJECT IDENTIFICATION	GRANTEE AND PROJECT DIRECTOR	PURPOSE AND INTEREST CATEGORY*
1512.	Planning Meeting by the Association of Computing Machinery	Association of Computing Machinery New York, New York Theodore D. Sterling, Ph.D.	To study the role of blind workers in the programming (machine tabulation) industry. (I)
RC-3.	Proposal for Special Training in the Russian Language of a Group of Blind Students to Acquire Competence in Transcribing and Translating Recorded Materials	Georgetown University Machine Translation Division 1330 New Hampshire Avenue, N. W. Washington, D. C. 20036 Dr. Leon E. Dostert	To develop a system for teaching blind students to translate Russian and German as heard in broadcasts. (I)
RC-8.	Sensory Measurements Research	Massachusetts Institute of Technology Cambridge 39, Mass. Dwight M. Baumann, Sc.D. Robert W. Mann, Sc.D. T. B. Sheridan, Sc.D.	To investigate and develop new and improved sensory, orthotic and prosthetic aid. Research and development studies to be carried on in obstacle probing devices, experimental isolating stimuli, audio-visual probe, high speed brailler operating on electrical signal input and prosthetic and research development study of all conceivable energy storage conversion and utilization techniques. (III)

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*Code of Interest Category: I, Vocational; II-A, Prevocational-Centers; II-B, Prevocational-Processes; II-C, Prevocational-Processes-Optical Aids; II-D, Prevocational-Processes-Mobility Demonstrations; II-E, Prevocational-Processes-Testing; III, Equipment; IV, Personnel.

GRANTEE AGENCIES OF VOCATIONAL REHABILITATION ADMINISTRATION GRANTS CONCERNING BLINDNESS

Alphabetically Listed

Agency	Project Number
Alabama Institute for the Deaf and Blind	111, 567
Alameda County School Department	1168
American Association of Workers for the Blind	869
American Foundation for the Blind	1, 352, 439 634, 871, 1407
American Foundation for Overseas Blind	1420
American Printing House for the Blind	587, 1086
Arkansas Enterprises for the Blind	876, 1328
Association for the Aid of Crippled Children	136, 788
Association of Computing Machinery	1512
Blinded Veterans Association	132
Boston University	1383
Catholic Charities (Chicago)	1082
Catholic Guild for All the Blind	304, 1330
Cincinnati Association for the Blind	90
Cleveland Society for the Blind	157, 400
Columbia University	346
District of Columbia Department of Vocational Rehabilitation	1415
Eye-Bank for Sight Restoration, Inc.	1018
Eye Research Foundation of Bethesda	1241, 1382
Franklin Institute	113
Georgetown University Medical Center	442
Georgetown University (Machine Translation)	RC-3
Georgia Division of Vocational Rehabilitation	5, 235
Grace-New Haven Community Hospital	348
Hawaii State Center for the Blind and Visually Handicapped	1327
Illinois Institute of Technology	282, 1412
Illinois, University of, Urbana	740
Indiana University Medical Center	263
Industrial Home for the Blind, Brooklyn	96, 315, 1004
Kansas State Department of Social Welfare	31
Los Angeles State College Foundation	1406
Marquette University School of Medicine	1344
Maryland Workshop for the Blind	654
Massachusetts Institute of Technology	RC-8
McCook (J.J.) Memorial Hospital, Hartford, Connecticut	525
Mecklenburg County Association for the Blind	1169
Metropolitan Society for the Blind, Inc., Detroit, Mich.	1228
Miami, University of	617

Agency	Project Number
Minneapolis Society for the Blind	84, 351, 1325
Mississippi Division of Vocational Rehabilitation for the Blind	633
Mississippi Medical Center, University of, Jackson	515
Mobile General Hospital	563
Montana State Department of Public Welfare	428
Nevada State Welfare Department	590
New York Association for the Blind	915
North Carolina Commission for the Blind	378
North Dakota State School of Science	1336
Oklahoma State Division of Vocational Rehabilitation	277
Oklahoma State University	672
Pennsylvania Working Home for the Blind	276
Perkins School for the Blind	779, 898
Pittsburgh, University of, Graduate School of Social Work	835
Presbyterian Eye, Ear and Throat Charity Hospital	701
Purdue Research Foundation	188
Recording for the Blind	556
Rhode Island Association for the Blind	398
Rochester and Monroe Association for the Blind	1346
San Francisco Lighthouse for the Blind	799
Shilling, C.W., Auditory Research Center	510
Sinai Hospital, Detroit, Michigan	852
Site, Inc.	46
Society of St. Vincent de Paul	970, 1179
South Dakota Services to the Visually Handicapped	475, 1342
Stanford Research Institute	1107
Texas Technological College	670
Texas Southwestern Medical School, University of	498
Utah Commission for the Blind	416
Vanderbilt University	399
Virginia Commission for the Visually Handicapped	539, 1198
Washington University, St. Louis, Missouri	226
Wayne State University	433
West Virginia State Division of Vocational Rehabilitation	570
Wichita, University of	1094
Wisconsin, University of	1167

PROJECT DIRECTORS OF VOCATIONAL REHABILITATION ADMINISTRATION GRANTS CONCERNING BLINDNESS

Alphabetically Listed

Project Director	Project No.	Project Director	Project No.
Anderson, R.P., Ph.D.	670	Lukoff, Irving F.	835
Barnett, M. Robert	352, 634	MacFarland, D.C., Ph.D.	539, 1198
Bauman, Dwight M., Sc.D.	RC-8	Mann, Robert W., Sc.D.	RC-8
Bliss, James C., Ph.D.	1107	Martinez, M., M.D.	1018
Boulter, Eric T.	1420	Mayo, Leonard	136
Browning, C.W., M.D.	498	McCollum, M.A.	46
Cannon, Richard O., M.D.	399	Milder, Benjamin, M.D.	226
Cannon, William M.	378	Mintz, Morris J., M.C.	852
Carkulis, Theodore	428	Nelms, R.G.	5
Carter, Burnham	556	Nolan, C.Y., Ph.D.	587, 1086
Caulfield, Thomas E., M.D.	1330	Norton, Edward W.D., M.D.	617
Cross, J.B., M.D.	876	O'Donnell, Thomas J. MSW	970, 1179
Curtin, Neale R.	276	O'Rourke, J.F., M.D.	442
Daum, Henry A.	351	Palacios, May H., Dr.	1094
Davis, Carl J.	898	Peckham, Robert H., Ph.D.	1382
de Juan, Eugene, M.D.	563	Perry, Donald W.	416
Diamond, Isabella S. (Miss)	869	Phillips, C., M.D.	348
Dolan, Cleo B.	157, 400	Quinn, Marian C.	1082
Dostert, L.E., Dr.	RC-3	Ratchford, William S.	654
Dupress, John K.	871	Riviere, Maya, D. Phil.	788
Dye, Arthur M., Jr.	1169	Ross, M. Frances (Mrs.)	799
Eaton, Allen H. (deceased)	352	Ruiz, John	590
Elsburgh, Donald E.	132	Ryder, James E.	1346
Frank, Wallace E.	113	Salmon, F. Cuthbert	672
Gambaro, Stephen A.	1415	Salmon, Peter J.	1004
Gentry, E.H.	567	Saterbak, Melvin E.	1325
Givens, W., Ph.D.	433	Scruggs, B.Q.	111
Graham, Milton D.	1407	Sheridan, T.B., Sc.D.	RC-8
Handel, Alexander F.	1, 439	Sherman, Allan W. (deceased)	915
Hanley, Leo F.	1383	Shurrager, Harriet C., Ph.D.	282, 1412
Hanson, Howard H.	475	Smith, Byron M.	84
Harris, J.D., Ph.D.	510	Sterling, Theodor D. Ph.D.	1512
Harris, L.H., M.D.	525	Sullivan, James	304
Hart, William N., M.D.	1241	Takemoto, Yasuloo, Mrs.	1327
Heber, Rick, Ph.D.	1167	Teare, Robert J., Ph.D.	1094
Hitz, John, M.D.	1344	Tiffin, Joseph, Ph.D.	188
Hoover, Richard E., M.D.	701	Tinkham, Robert A.	740
Horton, James A.	1336	Unkefer, Robert	31
Jarrell, A. Polk	235	Upshaw, McAllister	1228
Johnson, Daniel E., Ph.D.	1168	Waterhouse, E. J., D. Lit.	779
Johnson, S.B., M.D.	515	Whiteman, Martin, Ph.D.	346
Keane, George E.	96, 315	Williams, Jules D.	90
King, Robert W., M.D.	277	Williams, Raymond D.	633
Kumpe, Roy	1328	Wilson, Fred M., M.D.	263
Larsen, Leroy C.	1342	Wolfe, Earl W.	570
Lord, F.E., Ph.D.	1406	Worden, H.W., Mrs.	398

VOCATIONAL REHABILITATION ADMINISTRATION GRANT FUNDS BY FISCAL YEAR

Project No.	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964
1	$10,019	$	$	$	$	$	$	$	$	$
5	15,756		13,050	16,566	16,253					
31	6,519									
46		10,600								
84		142,365								
90			9,435							
96		20,000	29,495		10,752					
111			17,361	14,250	21,762					
113			29,280	8,833	8,050					
132			22,216	19,823	20,122					
136			11,125	13,166		10,000				
157			13,327	9,016	12,887					
188			31,471	30,158	32,671					
226				16,323	8,850	10,177	9,050			
235				6,476		5,490	5,210	5,100		
263				10,785	7,785	6,405	5,347			
276				9,152	4,795	1,678	1,399			
277				2,600	2,473					
282					36,646	30,780	4,772			
304				33,398	36,652	42,615				
315				32,474	36,780	41,720				5,000
346					32,750	36,612	39,980			
348				5,941		5,273	4,007			
351				3,400						
352				4,600						
378					7,560					
398					9,689	7,187	5,197	4,118		
399					4,011		2,860	3,260		
	$32,294	$172,965	$176,760	$236,961	$310,488	$197,937	$ 77,822	$ 12,478		$ 5,000

VOCATIONAL REHABILITATION ADMINISTRATION GRANT FUNDS BY FISCAL YEAR (Continued)

Project No.	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964
Brought Forward	$32,294	$172,965	$176,760	$236,961	$310,488	$197,937	$ 77,822	$ 12,478	$	$ 5,000
400					14,571	11,128	9,291	6,985		
416					9,160		6,790	4,945		
428						6,000				
433					19,240					
439						16,436	22,354	18,025		
442						11,875	24,417	27,511	28,831	
475						6,000	4,730			
498						5,032		1,753		
510						35,743	31,990	32,490		
515						3,636		2,240	2,240	
525						3,192	2,556			
539						15,029	15,357	14,098		
556							21,400			
563						9,204	4,430	3,920		
567						24,850	15,950	15,910		
570						2,790	3,160	2,080		
587							6,050	7,300		
590							5,995	4,828	2,200	
617							22,315	20,084	18,677	17,893
633							34,542	34,692	28,250	
634						37,800		38,200		
654							13,143	20,943		
670							12,358	12,036	9,880	
672							16,243			
701							11,255	7,850	7,135	5,800
740							37,676		19,255	
	$32,294	$172,965	$176,760	$236,961	$353,459	$386,652	$399,824	$288,368	$116,468	$ 28,693

VOCATIONAL REHABILITATION ADMINISTRATION GRANT FUNDS BY FISCAL YEAR (Continued)

Project No.	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964
Brought Forward	$32,294	$172,965	$176,760	$236,961	$353,459	$386,652	$399,824	$288,368	$116,468	$ 28,693
779							4,989			
788							32,000	32,500	32,500	
799							35,770	37,550	37,100	
835								21,321	16,951	
852								15,630	13,196	12,806
869								20,480	18,619	21,500
871								2,860		
876									6,175	
898									22,000	30,500
915								17,416	17,500	19,320
970								7,300		
1004								82,350		76,000
1018									20,619	21,000
1082									10,200	13,310
1086									5,380	
1094									32,220	30,552
1107									19,480	
1167									35,941	36,844
1168									23,600	
1169									11,416	
1179									30,279	26,732
1198									43,394	
1228										21,259
1241										11,894
1325										6,500
	$32,294	$172,965	$176,760	$236,961	$353,459	$386,652	$472,583	$525,775	$513,038	$356,910

VOCATIONAL REHABILITATION ADMINISTRATION GRANT FUNDS BY FISCAL YEAR (Continued)

Project No.	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964
Brought Forward	$32,294	$172,965	$176,760	$236,961	$353,459	$386,652	$472,583	$525,775	$513,038	$356,910
1327										16,660
1328										9,725
1330									15,000	
1336										47,150
1342										9,080
1344										17,610
1346										8,650
1382										31,281
1383										8,972
1406										22,378
1407										32,000
1412										37,809
1415										21,200
1420										17,000
1512										800
RC-3						43,294	34,711	18,634	78,255	97,975
RC-8							66,750	20,480	118,250	
Totals:	$32,294	$172,965	$176,760	$236,961	$353,459	$429,946	$574,044	$564,889	$724,543	$735,200

Grand Total: $4,001,061

REPORTS RESULTING FROM VOCATIONAL REHABILITATION ADMINISTRATION RESEARCH AND DEMONSTRATION PROJECTS CONCERNING BLINDNESS

1. American Foundation for the Blind, New York, New York.

   Handel, Alexander F., Project Director. National Survey of Personnel Standards and Personnel Practices in Services for the Blind. Published final report in two volumes, December 1958.

5. Georgia Division of Vocational Rehabilitation, Atlanta, Georgia.

   Nester, Earl N., and Nelms, F. G., Project Director. Greenhouse and Nursery Training for the Blind in a Vocational Rehabilitation Setting at the Georgia Academy for the Blind. Published final report, April 1960.

31. Kansas State Department of Social Welfare, Division of Services for the Blind, Topeka, Kansas.

    Unkefer, Robert K., Project Director. Music Therapy in the Rehabilitation of the Adult Blind. Published final report, July 1957.

46. SITE, Incorporated, Topeka, Kansas.

    McCollom, M. A., Project Director. Development of a Sight Substitute for the Blind. Unpublished final report, November 1956.

90. Cincinnati Association for the Blind, Cincinnati, Ohio.

    Glover, Calvin S., Project Director. Diversified Farming Activities for the Blind. Unpublished final report, December 1957.

96. Industrial Home for the Blind, Brooklyn, New York.

    Keane, George E., Project Director. Rehabilitation of Deaf-Blind Persons. Published final report consisting of seven volumes.

    ________, (ED.). I. A Manual for Professional Workers and Summary Report of a Pilot Study, 1958.

    ________, (ED.). II. Communication - A Key to Service for Deaf-Blind Men and Women, 1959.

    ________, (Ed.). III. Report of Medical Studies on Deaf-Blind Persons, 1959.

    Rothschild, Jacob. IV. A Report of Psychological Studies with Deaf-Blind Persons, 1959.

    Rusalem, Herbert. V. Studies in the Vocational Adjustment of Deaf-Blind Adults, 1959.

    Miller, Irving, and Barr, Sherman. VI. Recreation Services for Deaf-Blind Persons, 1959.

    Keane, George E., (Ed.). VII. Survey of Selected Characteristics of Deaf-Blind Adults in New York State, Fall 1957, 1959.

111. Alabama Institute for the Deaf and Blind, Talladega, Alabama.

     Scruggs, B. Q., Project Director. Correlating Services Available to Farmers. Published final report, June 1959.

113. Franklin Institute, Philadelphia, Pennsylvania.

Gibson, Robert J. (Frank, Wallace E., Project Director). *Evaluation of the Franklin Institute Electronic Cane.* Unpublished final report, 1963.

132. Blinded Veterans Association, Washington, D. C.

Elsburgh, Donald E., Project Director. *Study of Selected Unemployed Blinded Veterans and Demonstration of the Effectiveness of the Coordinated Use of Community Resources in the Total Rehabilitation of World War II and Korea Service-Connected Blinded Veterans.* Unpublished final report, May 1960.

157. Cleveland Society for the Blind, Cleveland, Ohio.

Norton, Fay-Tyler M., and Dolan, Cleo B., Project Director. *Improving and Accelerating the Process of Raising the Hearing of Blinded Persons to a Greater Degree of Usefulness.* Unpublished final research report, 1960.

______. *Training Hearing to Greater Usefulness: A Manual.* Published final report, 1960.

188. Purdue Research Foundation, Purdue University, Lafayette, Indiana.

Tiffin, Joseph, Project Director. *An Investigation of Vocational Success with the Blind.* Unpublished final report, November 1960.

235. Georgia Division of Vocational Rehabilitation, Atlanta, Georgia.

Jarrell, A. P., Project Director, and Gaines, W. B., Project Coordinator. *Low Vision Optical Aids Center.* Unpublished final report, July 1962.

263. Indiana University Medical Center, Department of Ophthalmology, Indianapolis, Indiana.

Wilson, Fred M., Project Director, and Moriarity, Mary Lou. *Low Vision Optical Aids Clinic.* Unpublished final report, March 1962.

276. Pennsylvania Working Home for the Blind, Philadelphia, Pennsylvania.

Curtin, Neale R., Project Director. *Low Vision Center.* Unpublished final report, May 1962.

277. State Division of Vocational Rehabilitation, Oklahoma City, Oklahoma.

King, Robert W., Project Director, and Dunlap, Jerry. *The Oklahoma Clinic for the Fitting of Optical Aids for the Near Blind.* Unpublished final report, January 1960.

282. Illinois Institute of Technology, Chicago, Illinois.

Shurrager, Harriett C., Project Director. *A Haptic Intelligence Scale for Adult Blind.* Published final report, November 1961.

304. The Catholic Guild for the Blind, Boston, Massachusetts.

Bishop, Yvonne, (Sullivan, James, Project Director). *Comparison of the Effectiveness of a 16-Week Training Program with a 12-Week Training Program in the Rehabilitation of Blinded Adults at the St. Paul's Rehabilitation Center.* Unpublished final report, February 1961.

346. Columbia University School of Social Work, New York, New York.

Whiteman, Martin, Project Director, and Lukoff, Irving F. *Attitudes and Blindness: Components, Correlates and Effects.* Unpublished final report, 1963.

348. Grace-New Haven Community Hospital, New Haven, Connecticut.

Philips, Carlton C., Project Director. Low Vision Aids Clinic. Unpublished final report, June 1961.

351. Minneapolis Society for the Blind, Minneapolis, Minnesota.

Daum, Henry A., Project Director. Believing is Seeing. An educational and informational 35mm., color film strip and long playing 33-1/3 RPM recording, with running time of 20 minutes, about the Regional Rehabilitation Centers. A final project report, December 1960, is available on loan from Vocational Rehabilitation Administration.

352. American Foundation for the Blind, New York, New York.

Eaton, Allen H. Beauty for the Sighted and the Blind. A final project report, December 1959. New York, St. Martin's Press, 1959.

378. North Carolina Commission for the Blind, Raleigh, North Carolina.

Cannon, William M., Project Director. A Study of the Effect of Automatic Machine Administration of the Kuder Preference Record Upon the Responses of Blind and Sighted Individuals. Unpublished final report, October 1959.

398. Rhode Island Association for the Blind, Providence, Rhode Island.

Worden, H. W., Project Director, and DiChiara, Frank W., Vision Rehabilitation Clinic. Unpublished final report, 1963.

399. Vanderbilt University Hospital, Nashville, Tennessee.

Cannon, Richard O., Project Director. Low Vision Optical Aids Clinic. Unpublished final report, 1962.

400. Cleveland Society for the Blind, Cleveland, Ohio.

Kaine, Patricia A. and Dolan, Cleo B., Project Director. Low Vision Clinic for Advancing Use of Optical Aids. Unpublished final report, April 30, 1963.

428. State Department of Public Welfare, Helena, Montana.

Severson, Duane C. (Carkulis, Theodore, Project Director). Rehabilitation of the Blind: A Time Factor Study. Unpublished final report, September 1960.

433. Wayne State University, Detroit, Michigan.

Nemeth, Abraham. (Givens, W., Project Director). Digital Enciphering of English into Braille. Unpublished final report, 1963.

439. American Foundation for the Blind, New York, New York.

Handel, Alexander F., Project Director. Personnel Referral Service — A National Clearing House for Jobs and Personnel in the Field of Blindness: Report of Activities. Unpublished final report, 1963.

525. John J. McCook Memorial Hospital, Hartford, Connecticut.

Hughes, Calvin T., Jr. (Harris, L. H., Project Director). Low Vision Optical Aids Clinic. Unpublished final report 1963.

539. Virginia Commission for the Visually Handicapped, Richmond, Virginia.

MacFarland, Doublas C., Project Director. Correlating Services Available to Farmers. Published final report, 1963.

556. Recording for the Blind, New York, New York.

Carter, Burnham, Project Director, and Haskell, Martin R. The Development of Basic Research Materials and a Manual on the Use of Recorded Textbooks. Unpublished final narrative research report, July 1961.

How to Use Educational Recordings Effectively. A published manual for blind students and guidance counselors. Also available in recorded form 16-2/3 RPM. Published final report, April 1962.

570. West Virginia Division of Vocational Rehabilitation, Charleston, West Virginia.

Wolfe, Earl W., Project Director, and Defabio, Gene A. Optical Aids Clinic. Unpublished final report, January 1963.

587. American Printing House for the Blind, Louisville, Kentucky.

Nolan, Carson Y., Project Director, and Morris, June E. Tactual Symbols for the Blind. Unpublished final report, 1962.

590. Nevada State Department of Health and Welfare, Bureau of Services to the Blind, Carson City, Nevada.

Ruiz, John C., Project Director. Low Vision Optical Aids Clinic. Unpublished report, 1963.

633. Mississippi Division of Rehabilitation for the Blind, Jackson, Mississippi.

Stojanovic, Elizabeth L. and Carballo, James L. A Study for the Purpose of Establishing the Relative Productivity of Techniques for Placing Blind Persons in Competitive Employment. Unpublished final report, September 1963.

634. American Foundation for the Blind, New York, New York.

Wiesner, Jerome B., General Chairman; Barnett, M. Robert, Associate Chairman and Project Director; Halopigian, N. Charles, Associate Chairman; and Clark, Leslie L. (Ed.). Proceedings of the International Congress on Technology and Blindness. Published final report, in four volumes, including catalog and appendix, 1963.

672. Oklahoma State University, Stillwater, Oklahoma.

Salmon, F. Cuthbert, Project Director, and Salmon, Christine F. The Blind: Space Needs for Rehabilitation. An architectural guide. Unpublished final report, July 1962.

740. University of Illinois, Industrial Education Division, Urbana, Illinois.

Tinkham, Robert A., Project Director. Teaching Woodworking to Visually Handicapped Persons — An Instructor's Guide. Published final report, August 1963.

779. Perkins School for the Blind, Watertown, Massachusetts.

Waterhouse, E. J., Project Director. Piano Industry Conference. A Conference to explore how blind persons can best meet needs of piano industry. Watertown, Massachusetts, April 13-15, 1961. Published final report, Agusut 1961.

871. American Foundation for the Blind, New York, New York.

Lisner, James W. (Ed.). Proceedings of the Mobility Research Conference, Washington, D. C., September 25, 1961, and Massachusetts Institute of Technology, October 11-13, 1961. Published, first of three-part final report, May 1962.

Dupress, John K., Project Director. Conference on the Research Project at the C. W. Shilling Auditory Research Center "Identifying and Teaching Auditory Cues for Traveling in the Blind." Cambridge, Massachusetts, January 19, 1962. Unpublished, second of three-part final report, 1962.

Dupress, John J. Mobility Research and Mobility Research Bibliography. Unpublished, third of three-part final report, 1963.

876. Arkansas Enterprises for the Blind, Inc., Little Rock, Arkansas.

Cross, Junis B., Project Director, and Russell, Dojelo C. Clinic for the Fitting of Optical Aids for the Near Blind. Unpublished final report, June 1963.

RC-8 Massachusetts Institute of Technology (Department of Mechanical Engineering).

Paul, Igor. Evaluation of Energy and Power Requirements for Externally Powered Upper-Extremity Prosthetic and Orthopedic Devices, 1962. Unpublished report.

Saslow, Lester. Tactile Communication with Air Jets, 1962. Unpublished report.

Mann, R. W., Ivester, A. S. and Siemens, P. J. Evaluation Report on Work in Progress on Sensory Aids and Prosthetics, 1962. Unpublished report.

INTERNATIONAL RESEARCH ACTIVITIES OF THE VOCATIONAL REHABILITATION ADMINISTRATION

The Vocational Rehabilitation Administration has been involved in International Activities since 1947. These activities, described below, are carried on in cooperation with the United States and its specialized agencies; the Department of State; and numerous voluntary agencies such as the American Foundation for Overseas Blind and the World Rehabilitation Fund.

Since August, 1960, the Vocational Rehabilitation Administration has conducted a program of rehabilitation research abroad with American-owned foreign currency derived from the sale in foreign countries of United States agricultural surpluses. Over 50 rehabilitation research projects have been approved and are in operation in 10 cooperating countries. Nine of the projects, described elsewhere in this article, page 40, are concerned with the problems of blind people and blindness.

The International Health Research Act (P.L. 86-610) authorizes the Vocational Rehabilitation Administration to the interchange between the United States and participating foreign countries of scientists and experts engaged in rehabilitation research. Over 53 interchanges have been arranged since the inception of this program in September, 1961. Thirty-one Americans have gone abroad and 22 foreigners have been brought to the United States. Many of the interchange experts are concerned with the rehabilitation of blind people.

Since 1947, the Vocational Rehabilitation Administration has planned rehabilitation training programs for approximately 1,500 trainees, leaders and visitors from 80 countries who have been sent to the United States by their own governments, the Agency for International Development, the Department of State and the United Nations. This has been one of the most constructive aspects of the Vocational Rehabilitation Administration's international activities since these trainees upon return to their homelands take positions of leadership in rehabilitation. For example, one trainee is the director of the rehabilitation program in the Philippines.

Finally, the Vocational Rehabilitation Administration supplies technical and professional rehabilitation publications to agencies abroad and to individuals who visit the office. The overseas mailing list includes governmental and voluntary agencies in most countries of the world.

VOCATIONAL REHABILITATION ADMINISTRATION — INTERNATIONAL RESEARCH ON BLINDNESS

PROJECT NUMBER	IDENTIFICATION AND COST	GRANTEE AND PRINCIPAL INVESTIGATOR	PURPOSE
OVR-ISR-2-61	Experimentation with methods of training blind persons in the textile industry Approx. Cost: IL 263,329	Ministry of Social Welfare Jerusalem Mr. S. Shosowski	To experiment with methods of training the blind in cone winding, cotton spinning and weft-winding cotton weaving. Studies are conducted in a training center with the teaching of complete range of operations necessary for handling machinery in the textile industry, adapted to the working ability of blind people, to provide for maximum utilization of the working capacity of blind persons and securing skilled manpower for the textile industry.
OVR-India-8-61	Experimentation with methods of rehabilitating the blind as farmers Approx. Cost: Rs 500,000	The Tata Agricultural and Rural Training Center for the Blind Jehangir Wadia Building Mahatma Gandhi Road Fort Bombay 1, India Capt. H. J. M. Desai Honorary Secretary	To experiment with ways of rehabilitating the blind as farmers and handicraft workers, resettling them in the villages in India; to investigate the methods of crop production and crafts regionally to ascertain which of these will be best suited for the blind in each particular case; to evolve the application of present techniques in vogue in the West and in Africa and apply these to Indian conditions; and to study the handicap of blindness in terms of environment relatively isolated from civilized amenities.

VOCATIONAL REHABILITATION ADMINISTRATION — INTERNATIONAL RESEARCH ON BLINDNESS — (Continued)

PROJECT NUMBER	IDENTIFICATION AND COST	GRANTEE AND PRINCIPAL INVESTIGATOR	PURPOSE
OVR-Syria-1-63	Experimental Agricultural vocational center for the blind Approx. Cost: Rs 385,000	The National Institute for the Blind Nouri Pasha St. Damascus, Syria Mr. A. R. El-Rikaby Director	A major emphasis in rehabilitation of the blind in Syria should be training and preparation for rural vocations related directly to environment and placement in such occupations to ensure future self-sufficiency. This project will establish an experimental agricultural-vocational centre for the rehabilitation of blind persons in Syria.
VRA-IND-6-63	Investigation of rehabilitation workshop methods Approx. Cost: Rs 500,000	The National Association for the Blind Jehangir Wadia Building 51, Mahtma Gandhi Road Fort, Bombay 1, India Lt. G. L. Nardekar Honorary Sec-	In India there are no rehabilitation workshops based on subcontract and light industry or any designed for the purpose of training and placing blind people into competitive employment in light engineering plants and factories. In this workshop, studies are under way on rehabilitation methods to foster the absorption of blind workers into open competitive employment.
VRA-IND-1-64	Investigation of training techniques to use in rehabilitating blind persons Approx. Cost: Rs 294,800	Ramakrishna Mission Ashrama Post Office Narendrapue District 24 Parganas West Bengal, India Bhabani Prosad Chanda	The traditional training for the blind in the Calcutta Area has been confined to preparing them to become musicians or handicraftsmen. The blind, thus trained, are unable to secure for themselves even a subsistence level income. In this project, studies are being made of training techniques for rehabilitating blind persons into competitive employment.
VRA-IND-5-64	Early detection of visual defects Approx. Cost: Rs 139,560	The National Society for the Prevention of Blindness, New Delhi, in cooperation with All-India Institute of Medical Sciences Dr. S.N. Mitter, Honorary Sec'y.	An investigation of techniques for the development of a programme for early detection of visual defects and the effects of this program on the rehabilitation of such persons.

VOCATIONAL REHABILITATION ADMINISTRATION — INTERNATIONAL RESEARCH ON BLINDNESS — (Continued)

PROJECT NUMBER	IDENTIFICATION AND COST	GRANTEE AND PRINCIPAL INVESTIGATOR	PURPOSE
VRA-ISR-14-64	Importance of Orientation and Mobility of the Blind Approx. Cost: 1L 72,700	The Israel Foundation for Guide Dogs for the Blind Tel Aviv, Israel Prof. Dr. Rudolfine Menzel	To study and evaluate the importance of orientation and mobility in the rehabilitation of the blind with special reference to the fundamental differences between persons born blind and the newly blinded.
VRA-LSR-13-64	Rehabilitation of the Blind as data processing machine operators Approx. Cost: 1L 325,190	The Ministry of Social Welfare Jerusalem, Israel Mr. Dov Chevion Deputy Director Office Mechanization Centre, Ministry of Finance	The continuous mechanization and automation taking place all over the world has brought about the necessity for the revaluation of work and placement opportunities for the handicapped and particularly the blind. Studies are being made on the rehabilitation of blind, partially sighted and otherwise handicapped persons as data processing machine operators.

U. S. PUBLIC HEALTH SERVICE RESEARCH CONCERNING BLINDNESS

(Data furnished by Augustine Gentile of the National Center for Health Statistics, Public Health Service.)

The National Center for Health Statistics of the U. S. Public Health Service includes in its program of collecting health statistics a household health interview survey. The Health Interview Survey collects data from approximately 40,000 households per year, comprising about 130,000 persons.

For the years prior to fiscal year 1964, the Survey has prepared estimates of the number of persons with severe visual impairment using as a basis for its estimates negative responses to the question "Can you see well enough to read ordinary newspaper print with glasses?" On the basis of this functional definition, about 1,000,000 persons were described by the Survey as having severe visual impairment. Estimates from other sources based on clinical definitions, describe 400,000 persons as "legally blind." The difference in these estimates is of course primarily due to the use of different definitions. Nevertheless, the meaning, importance and implications of this difference is of concern to organizations interested in the problems of persons with severe visual loss. Therefore, at the request of these organizations, during fiscal year 1964, the Survey is attempting to better define and describe, in functional and other terms, the group of persons who are reported as unable to read ordinary newspaper print.

For this reason a special series of questions are being asked about all persons who were reported in the basic interview to have an eye disease or injury of any sort or any degree of visual loss. Where visual loss appears to be indicated by responses to this series of questions an additional set of questions will be asked to elicit detailed information.

The data collected for this project will be completed at the end of June 1964. It is anticipated that a report will be published in the spring of 1965.

Meanwhile, to meet the increasing need for uniform, reliable, and comparable statistics on the problem of severe visual impairment among the Nation's population, the National Institute of Neurological Diseases and Blindness (NINDB), with the counsel and cooperation of the National Society for the Prevention of Blindness, the American Foundation for the Blind, and the Division of Chronic Diseases of the Public Health Service, sponsored the organization of a Model Reporting Area for Blindness Statistics (MRS). This Model Reporting Area is a voluntary association of States which maintain registers of blind persons, and which have joined together in a pioneering and cooperative effort to collect uniform information so as to arrive at comparable and meaningful statistics on blindness of benefit to the States themselves and to the Nation as a whole.

The two basic objectives, to which each member State subscribes and agrees to uphold, are to make better statistics available on blind persons and to stimulate research in the field of blindness.

Information concerning this undertaking may be secured from the Project Director, Hyman Goldstein, Ph.D., Chief, Biometrics Branch, NINDB, National Institutes of Health, Bethesda, Maryland.

NATIONAL INSTITUTE OF NEUROLOGICAL DISEASES AND BLINDNESS PROJECTS CONCERNING BLINDNESS

(From data prepared by John B. Wolff, Ph.D., Staff Scientist, Extramural Programs, National Institute of Neurological Diseases and Blindness, National Institutes of Health.)

PROJECT NUMBER	IDENTIFICATION	GRANTEE AND PRINCIPAL INVESTIGATOR	YEAR	COST
02022	Electro-tactile Communication for the Blind-Deaf	Carnegie Institute of Technology	1959	$ 9,952
		Pittsburgh, Pennsylvania	1960	6,502
		B. von Haller Gilmer, Ph.D.	1961	6,502
		Robert H. Gibson, Ph.D.	1962	17,850
			1963	12,600
			Total	$ 53,406

NATIONAL INSTITUTE OF NEUROLOGICAL DISEASES AND BLINDNESS PROJECTS CONCERNING BLINDNESS - (Continued)

PROJECT NUMBER	IDENTIFICATION	GRANTEE AND PRINCIPAL INVESTIGATOR	YEAR	COST
02403	An Interdisciplinary Study of Blindness in Children	Northwestern University Medical School Chicago, Illinois Jerome Cohen, Ph.D.	1958 1959 1960 1961 Total	$ 52,723 52,723 68,673 51,505 $255,582
02492	Refinement of Battelle Aural Reading Device	Battelle Memorial Institute Columbus, Ohio William D. Hitt, Ph.D.	1960 1961 1962 1963 Total	43,204 33,896 38,565 27,197 $142,862
03129	Cues in the Tactual Perception of Patterns	American Printing House for the Blind 1839 Frankfort Avenue Louisville, Kentucky Carson Y. Nolan, Ph.D.	1961 1962 1963 1964 Total	10,016 7,960 8,682 9,060 $ 35,718
03336	Factors in the Success of Guide Dogs for the Blind	Guide Dogs for the Blind, Inc. San Rafael, California Clarence J. Pfaffenberger	1961 1962 1963 Total	30,629 25,749 26,828 $ 83,206
03351	The Definition of Blindness	State University of Iowa Iowa City, Iowa Alson E. Braley, M.D.	1961 1962 Total	$ 3,000 10,100 $ 13,100
04226	Electroencephalography and Severe Visual Deprication	Northwestern University Evanston, Illinois Jerome Cohen, Ph.D.	1962 1963 Total	19,210 15,985 $ 35,195
04282	An Epidemiological Survey of Visual Impairment	American Foundation for the Blind 15 West 16th Street New York 11, New York Eric Josephson, Ph.D.	1962 Total	25,000 $ 25,000
04283	Study of An Electronic Brailing System	Colorado State College Greeley, Colorado R. W. Woodcock, D.Ed.	1963 Total	26,179 $ 26,179
04738	Quantitative Measures of of Echo-ranging in the Blind	Stanford Research Institute Menlo Park, California Winthrop N. Kellogg, Ph.D. Dr. Charles E. Rice	1963 1964 1965 Total	81,530 64,275 66,775 $212,580

NATIONAL INSTITUTE OF NEUROLOGICAL DISEASES AND BLINDNESS PROJECTS CONCERNING BLINDNESS - (Continued)

PROJECT NUMBER	IDENTIFICATION	GRANTEE AND PRINCIPAL INVESTIGATOR	YEAR	COST
04870	Reading and Listening in Learning by the Blind	American Printing House for the Blind 1839 Frankfort Avenue Louisville, Kentucky Carson Y. Nolan, Ph.D.	1963	22,540
			1964	15,900
			1965	15,900
			1966	15,900
			Total	$ 70,240
05150	Development of An Electronic Brailling System	George Peabody College Nashville, Tennessee R. W. Woodcock, D.Ed. Samuel C. Ashcroft, D.Ed.	1963	43,747
			1964	27,408
			1965	21,000
			Total	$ 92,155

NATIONAL INSTITUTE OF MENTAL HEALTH RESEARCH CONCERNING BLINDNESS

PROJECT NUMBER	IDENTIFICATION AND COST	GRANTEE AND PRINCIPAL INVESTIGATOR	PURPOSE
MH 07329	Behavioral Integration of the Totally Blind Cost: $3,500 10-1962 - 9-1963	New Orleans Psychoanalytic Institute 3720 Prytania St. New Orleans 15, Louisiana D. A. Freedman, M.D.	To make a longitudinal study of ego development in a series of congenitally blind youngsters, which it is hoped will clarify some of the factors in ego development thrown into life by visual deprivation.
MH 06998	Role of Expectation of Blindness in a Oaxaca Village Cost: $6,467	Department of Anthropology Columbia Univ. New York 27, New York Margaret Mead	To study through the observation of a blind co-principal investigator the onset of blindness where onchocercosis threatens as high as 90% of population.
MH 3593	Experimental Study on the Ability Structure of the Blind and Deaf Cost: $31,150 FY 1964 Commitment: $4,100	Institute of Occupational Health Haartmaninkatu 1, Helsinki Finland	To study interrelations of functions associated with orientation ability of the blind and relations of these functions with the rest of the ability structure.

NATIONAL INSTITUTE OF MENTAL HEALTH RESEARCH CONCERNING BLINDNESS - (Continued)

PROJECT NUMBER	IDENTIFICATION AND COST	GRANTEE AND PRINCIPAL INVESTIGATOR	PURPOSE
MH 1292	Brain Chemistry and Behavior Cost: $209,725 Completed	University of California Berkeley 4, California David Kretch, Professor of Psychology	To study the adaptive behavior of animals in relation to chemical and anatomical measures of their brains. This included "Mechanisms of Seeing," as reported by Mark R. Rosensweig in Proceedings of the International Congress on Technology and Blindness, Vol. II.
MH 1044 (R-11)[1]	A Mental Health Center for Disturbed Blind Children Cost: $120,976 FY 1965 Commitment: $67,480	The Jewish Guild for the Blind 1880 Broadway New York 23, New York Walter Kass, Ph.D.	To develop and refine diagnostic, treatment, teaching, and casework methods. To develop interagency patterns of collaboration.

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[1] R-11 indicates a mental health project grant awarded for the purpose of conducting studies and demonstrations which will promote the development of improved methods of care, treatment and rehabilitation of the mentally ill.

U. S. OFFICE OF EDUCATION RESEARCH CONCERNING BLINDNESS

(Data furnished by the Cooperative Research Branch, Bureau of Research and Development.)

PROJECT NUMBER	IDENTIFICATION DURATION AND COST	GRANTEE AND PRINCIPAL INVESTIGATOR	PURPOSE
424	An Experiment in Teaching Topographical Orientation to Congenitally Blind Children Cost: $7,130 4-1958 - 9-1959	Boston Univ. Boston, Mass. Ralph Garry	To determine whether the topographical orientation and spatial organization of congenitally blind children can be improved through a training program.
916	The Nature and Development of Spatial Concepts in Congenitally Blind Children Between Ages 2 & 4 Cost: $38,658 5-1960 - 4-1962	Boston Univ. Boston, Mass. Ralph Garry	To evaluate the nature of spatial concepts in preschool blind children and the changes occurring in these concepts over a period of two years resulting from growth and maturation, and from special training.

U. S. OFFICE OF EDUCATION RESEARCH CONCERNING BLINDNESS
(Continued)

PROJECT NUMBER	IDENTIFICATION DURATION AND COST	GRANTEE AND PRINCIPAL INVESTIGATOR	PURPOSE
1005	Comprehension by Blind of Information Presented in Braille and Auditorily at Various Word Rates Cost: $14,815 9-1960 - 8-1961	University of Louisville Department of Psychology and Social Anthropology Louisville, Ky. Ray H. Bixler	To compare the comprehension of a group of blind children who read selections in Braille with the comprehension of similar groups of blind children who hear the same selections at several different word rates. Changes in word rate will be accomplished by the time compression technique.
1370	Comprehension of Rapid Speech by the Blind: Part II Cost: $14,815 2 years	University of Louisville Louisville, Ky. Ray H. Bixler	An extension of research currently under way which seeks to determine the feasibility of the time compression techniques for increasing the rate of communication of spoken information.
1650	Construction and Standardization of a Battery of Braille Skill Tests Cost: $31,728	Colorado State College Greeley, Colo. Richard W. Woodcock	To provide teachers of the blind with objective measurement data regarding a student's overall development in braille as well as provide a means of analyzing the student's strengths and weaknesses in braille skills.

U.S. VETERANS ADMINISTRATION RESEARCH CONCERNING BLINDNESS

"1961 Survey of Blinded Veterans with Service-Connected Disabilities"

(From information furnished by Russell C. Williams, Chief, Blind Rehabilitation, Physical Medicine and Rehabilitation Service, Veterans Administration)

The Veterans Administration is cooperating with the American Foundation for the Blind, Incorporated, in a medical and psycho-social survey of blinded veterans with service-connected disabilities. The Veterans Administration through its medical Research Service has provided grant funds starting in 1961 and totalling one hundred and eleven thousand dollars ($111,000.00) through Fiscal Year 1964. To this the American Foundation for the Blind has added funds for the project.

The Project Director is Dr. Milton Graham, Director of Research and Statistics at the American Foundation for the Blind. Project headquarters and staff are located in Washington, D.C.

Outpatient clinics of the Veterans Administration's Department of Medicine and Surgery are collecting data for the project by inviting blinded veterans to come in for interviews and examinations conducted by Veterans Administration personnel. Outpatient clinics serving blinded veterans in the following areas are cooperating with the project: Hartford, Connecticut; Boston, Massachusetts; New York City; Newark, New Jersey; Philadelphia, Pennsylvania; Washington, D. C.; St. Petersburg and Miami, Florida; Chicago, Illinois; and San Francisco and Los Angeles, California. For the purpose of providing background data on individual blinded veterans, the Veterans Administration has made medical and other records available to the project staff.

It is the objective of the project to collect, organize and analyze data on a sizable sample of blinded veterans in such a way that much will be known about the adjustments and circumstances of the entire group. It is anticipated that data collection will be completed by the end of the first half of 1964 and that tabulation and analysis will be completed by the end of this year.

U. S. VETERANS ADMINISTRATION RESEARCH CONCERNING BLINDNESS

(From data prepared by Howard Freiberger, Electronics Engineer, and reviewed by Eugene F. Murphy, Ph.D., Chief, Research and Development Division, Prosthetics and Sensory Aids Service, Veterans Administration, 252 Seventh Avenue, New York, New York 10001.)

PROJECT NUMBER	IDENTIFICATION DURATION AND COST	CONTRACTOR OR GRANTEE ADDRESS	PRINCIPAL PERSONNEL	PROJECT PURPOSE
Intra VA[1]	Follow-up study of War Blinded 10-1-52 - circa 1958 Cost, not available	Social Work Service and Physical Medicine and Rehabilitation Service Department of Medicine and Surgery Veterans Administration Wash., D. C.	A.B.C. Knudson, M.D. R. Cumming Miss Irene Grant Warren Bledsoe	To develop a clearer, more complete picture of the blinded veteran group than has been previously available to VA personnel from whom the general public gets informed opinion.
Intra VA[1]	TTS-to-Braille Translator Circa 1954 - 1956 Cost, not avail-	Research and Development Division Prosthetic and Sensory Aids Service Veterans Administration Washington, D. C.	Sidney Friedrich	To provide an additional information source for the blind by translating current materials which happen to be punched in "Teletypesetter" tape into Braille encoded tape for readout on a machine such as the IBM Braille Belt Reader.

[1] Inter VA projects were not assigned numbers.

U. S. VETERANS ADMINISTRATION RESEARCH CONCERNING BLINDNESS (Continued)

PROJECT NUMBER	IDENTIFICATION DURATION AND COST	CONTRACTOR OR GRANTEE ADDRESS	PRINCIPAL PERSONNEL	PROJECT PURPOSE
Intra VA[1]	VA R&D Division Work in Aids for the Blind Current	Research and Development Division Prosthetic and Sensory Aids Service	Eugene F. Murphy, M.D. Howard Freiberger	To stimulate research on aids for the blind by arranging for conferences of reports and bibliographic materials, maintenance of a specialized library, and generally serving the interested research community.
Inter-Agency[2]	Spectacle Lens Performance Cost: $37,000 7-1-52 - 6-30-55	National Bureau of Standards Washington 25,	Francis E. Washer	To develop new methods of measuring the degree of marginal correction of "corrected curve" spectacle lenses, and to develop improved performance specifications for such lenses.
VAm-21223 Subcontract #7	CSD Central Laboratory Cost: $259,210 10-16-45 — 12-31-47	National Academy of Sciences National Research Council Washington, D. C.	Dr. Paul A. Zahl Dr. Franklin S. Cooper Dr. Caryl P. Haskins	To conduct laboratory work for the Committee on Sensory Devices, such as testing of devices submitted by contractors, and construction of experimental devices.
VAm-21223 Subcon- #8	Hoover Company Supersonic Aid 10-16-45 — 6-30-47 Cost: $14,000	National Academy of Sciences National Research Council 2101 Constitution Ave. Washington, D. C.	L. K. Acheson W. D. Cropley D. G. H. B. White Dr. G. P. Daiger	To design and construct a mechanical generator of supersonic waves to be used as a source in a blind guidance aid.

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[1] Intra VA projects were not assigned numbers.

[2] Inter-Agency VA projects were not assigned numbers.

U. S. VETERANS ADMINISTRATION RESEARCH CONCERNING BLINDNESS (Continued)

PROJECT NUMBER	IDENTIFICATION DURATION AND COST	CONTRACTOR OR GRANTEE ADDRESS	PRINCIPAL PERSONNEL	PROJECT PURPOSE
VAm-21223 Subcontract #9	Stromberg-Carlson Company Supersonic Aid	National Academy of Sciences National Research Council 2101 Constitution Ave. Wash., D. C.	Frank Slaymaker Benjamin Olney Willard F. Meeker	To develop, construct, and test susonic devices for aid of the military blind.
VAm-21223 Subcontract #10	A Supersonic Blind Aid 12-1-45 - 6-30-47 Cost: $19,167	National Academy of Sciences National Research Council 2101 Constitution Ave. Wash., D. C.	T. E. Lynch Charles Merchant John Shower	To produce a mobility aid for blind persons using supersonic emission and an F. M. system. Information was to be conveyed to the user via an insert phone in one ear.
VAm-21223 Subcontract #13	RCA Recognition Reading Machine 12-1-45 - 3-31-48 Cost: $40,555	National Academy of Sciences National Research Council 2101 Constitution Ave. Washington 25, D. C.	V. K. Zworykin (Dr.) L. E. Flory W. S. Pike	To develop devices for reading printed matter by senses other than sight.
VAm-21223 Subcontract #19	Faximile Visagraph 7-1-46 - 6-30-47 Cost: $43,000	National Academy of Sciences National Research Council 2101 Constitution Ave. Wash., D. C.	J. V. L. Hogan	To conduct studies and experimental investigations connected with developing an improved "Visagraph."
VAm-21223 Subcontract #20	Optical Aids for Partially Sighted 7-1-46 - 6-30-47 Cost: $4,275	National Academy of Sciences National Research Council 2101 Constitution Ave. Washington 25, D. C.	Prof. K. N. Ogle V. J. Ellerbrock	To study and experiment on the design and development of optical devices to aid those with subnormal vision.

U. S. VETERANS ADMINISTRATION RESEARCH CONCERNING BLINDNESS
(Continued)

PROJECT NUMBER	IDENTIFICATION DURATION AND COST	CONTRACTOR OR GRANTEE ADDRESS	PRINCIPAL PERSONNEL	PROJECT PURPOSE
VAm-21223 Subcontract #21	Projection Magnifier 7-1-46 - 2-28-47 Cost: $19,980	National Academy of Sciences National Research Council 2101 Constitution Ave. Wash., D. C.	Dr. H. Jehle Col C. H. Greenall Dr. N. C. Smith W. Frank H. Palmer	To conduct research and development on a projection magnifier for use of the semi-blind.
VAm-21223 Subcontract #23	Obstacle Detector 9-1-46 - 12-31-47 Cost: $18,250	National Academy of Sciences National Research Council 2101 Constitution Ave. Washington, D. C.	Col. C. H. Greenall Dr. Nicol G. Smith R. E. Benn	To study history of optical and sonic probing, to determine best optical means to note relative merits of narrow and wide beam systems and automatic scan, and to prepare tentative designs for an optical probe for the blind.
VAm-21223 Subcontract #24	Aids for the Partially-Sighted 11-1-46 - 6-30-47 Cost: $7,000	National Academy of Sciences National Research Council 2101 Constitution Ave. Wash., D. C.	Dr. Gabriel Farrell Dr. Walter F. Dearborn Dr. Philip W. Johnston	To conduct studies and experimental investigations in connection with the adaptation of visual aids for use by the partially-sighted.
V1001M-529	A-2 Reader Evaluation 2-11-49 - 6-30-52 Cost: $42,060	University of Michigan Institute for Human Adjustment Ann Arbor, Michigan	Dr. Wilma Donahue	To evaluate the RCA A-2 reading machine for the blind, a direct-translating device with audible output related to the letter shapes.
V1001M-1681	Aids for Partially Sighted 4-1-50 - 9-30-51 Cost: $2,700	University of Rochester Institute of Optics Rochester, New York	Dr. Brian O'Brien Jefferson B. Davis, Jr.	To evaluate a collection of twenty-one optical devices designed to aid the partially sighted. Forty-four service-connected, partially tially sighted veterans from metropolitan N. Y. participated.

U. S. VETERANS ADMINISTRATION RESEARCH CONCERNING BLINDNESS
(Continued)

PROJECT NUMBER	IDENTIFICATION DURATION AND COST	CONTRACTOR OR GRANTEE ADDRESS	PRINCIPAL PERSONNEL	PROJECT PURPOSE
V1001M-1900	Guidance Device 3-15-50 to present Cost: $218,110	Haverford College Haverford, Pennsylvania	Prof. T. A. Benham J. M. Benjamin	To develop an improved electronic mobility aid for the blind based on active radiation, optical methods. Initial work involved evaluation of the Signal Corps device designed by Lawrence Cranberg.
V1005-458	Spelled Speech 6-9-55 - 6-30-60 Cost: $29,794	University of Southern California Los Angeles, California	Prof. Milton F. Metfessel	To conduct studies and investigations to determine the value of spelled-speech methods as applied to the output of an inexpensive reading machine for the blind.
V1005M-1253	Outputs for Reading Machines 4-1-57 to present Cost: $165,334	Haskins Laboratories, Inc. 305 East 43rd Street New York, New York 10017	Dr. Franklin S. Cooper	To conduct fundamental studies of speech and speech-like sounds as outputs for various types of reading machines for the blind.
V1005M-1254	Word Reading Machine 4-1-57 to present Cost: $27,000	Haskins Laboratories, Inc. 305 East 43rd Street New York, New York 10017	Dr. Franklin S. Cooper	To construct a machine capable of storing and then replaying some 7000 words at the choice of an input mechanism. The device is to be the output end of a recognition print reader, and/or an experimental tool for studying machine-compiled speech.

U. S. VETERANS ADMINISTRATION RESEARCH CONCERNING BLINDNESS (Continued)

PROJECT NUMBER	IDENTIFICATION DURATION AND COST	CONTRACTOR OR GRANTEE ADDRESS	PRINCIPAL PERSONNEL	PROJECT PURPOSE
V1005M-1261	Home-Type Reading Machine 4-15-57 - 6-30-58 Cost: $57,575	Battelle Memorial Institute 505 King Ave. Columbus, Ohio 43201	J. K. Wetherbee Dr. R. Laymon Dr. J. S. Abma D. R. Rice	To develop a simple, portable, inexpensive home-type reading machine for the blind of the "direct translation" or optophone type.
V1005M-1410	Personal-Type Reading Machine 8-1-57 - 9-30-58 Cost: $15,000	Mauch Laboratories, Inc. 3035 Dryden Road Dayton, Ohio 45439	Hans A. Mauch Albert F. Emanuel	To enable blind persons to read independently ink-print at speeds several times higher than achieved with optophone-type machines, without exceeding the weight, space, and cost limitations of a portable, personal reading device.
V1005M-1943	Personal-Type Reading Machine 9-12-58 - present Cost: $203,508	Mauch Laboratories, Inc. 3035 Dryden Road Dayton, Ohio 45439	Hans A. Mauch	Further development of the Mauch personal-type reading machine for the blind commenced under Contract V1005M-1410.
V1005M-1961	VA-Battelle Optophone 7-1-58 to present Cost: $236,176	Battelle Memorial Institute 505 King Ave. Columbus, Ohio 43201	Dr. Wm. D. Hitt John L. Coffey	To develop and evaluate a nine-tone optophone and an associated training program. To construct ten production engineered units and to assist during independent clinical application studies.
V1005M-5292	Braille Reproduction 10-26-60 — 6-30-61 Cost: $3,986	Adelphi Research Center 80 East Old Country Rd. Mineola, New York	Dr. Robert G. Wolfson	To investigate systems for the electrical and mechanical reproduction of braille, including the use of perforated paper tapes as storage media.

U. S. VETERANS ADMINISTRATION RESEARCH CONCERNING BLINDNESS (Continued)

PROJECT NUMBER	IDENTIFICATION DURATION AND COST	CONTRACTOR OR GRANTEE ADDRESS	PRINCIPAL PERSONNEL	PROJECT PURPOSE
V1005P-5321	Spelled Speech 11-1-60 to present Cost: $36,498	Metfessel Laboratories 5100 Victoria Avenue Los Angeles California	Dr. Milton F. Dr. Constance Lovell	To determine the value of, and to develop, spelled speech methods for application as audible output for a relatively inexpensive reading machine for the blind.
V1005M-9217	Obstacle Detectors for the Blind 6-6-61 to present Cost: $71,649	Bionic Instruments, Inc. 221 Rock Hill Road Bala-Cynwyd, Pennsylvania	J. M. Benjamin Prof. T. A. Benham Dr. Don DeVault	To construct approximately ten well engineered, reliable, obstacle detectors for the blind patterned after earlier models, for use in evaluation studies of the devices. To continue study of detection of down-curb, up-curb, and overhead obstacles and of integrated designs.
V1005P-9639	TRACOR Evaluation of G-5 O/D 7-6-62 to present Cost: $30,300	TRACOR, Incorporated 1701 Guadalupe Street Austin 1,	Dr. Bruce H. Deatherage Dr. Philip Worchel	To evaluate the effectiveness of the Model G-5 unit, to study the performance of the subjects with and without the device, and to note subjective reactions to the instrument.
In Process	Perception of Objects by Use of Sound - (Initial approval for FY 1964) Cost: $10,000	Lockheed - California Co. Burbank California	Dr. John J. Dreher	As a result of prior investigations of sonic echo-location at Lockheed, it has been concluded audible sound as an echolocation signal has potential as a navigation means for the blind. The study will attempt to determine the feasibility of employing pulsed audible clicks or high frequency sound as a signal for obstacle detection.

U.S. VETERANS ADMINISTRATION BIBLIOGRAPHY OF PUBLICATIONS RESULTING FROM RESEARCH CONCERNING BLINDNESS

No Number Follow-up Study of War Blinded.

Veterans Administration, "War Blinded Veterans in a Postwar Setting." U.S. Government Printing Office, Washington, D.C.

No Number TTS-to-Braille Translator

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SOCIAL WELFARE IN TRANSITION

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Introduction

Social welfare in this country is in a transition that has immense implications for the future well-being of our society and that, in turn, could affect the course of human affairs.

Traditionally, in our own country, as well as in other modern democratic societies, public interest in social welfare has varied directly with the extent of human misery prevailing — and acknowledged — at any particular time. The great preoccupations of the American people in the 18th and 19th centuries were the growing industrial revolution and the increasingly mechanized exploitation of the nation's vast natural resources.

True, increased national concern about the health and well-being of the nation's children was becoming apparent around the turn of the century. There was some Federal aid to education through the land-grant colleges, and by that time there had been determined and effective agitation for humane treatment of the insane. But, for the most part, social welfare was limited to a few immediate and readily apparent problems. In addition to a few hospitals for the insane, there were some poorhouses for the aged, some asylums for orphan children, a few neighborhood houses in big city slums, a patchwork system of local relief, and the beginnings of local and State "pensions" for a few blind, aged, and mothers with dependent children. That was about the extent of organized social welfare in the early part of this century.

There were long hours of hard physical labor for nearly everyone who could work. For the very young, the very old, and the disabled, there was, in most cases, the three- or four-generation family — its own welfare unit. There were widespread opportunities for individual initiative and opportunity to move occupationally, geographically and socially. Those ancient scourges, the contagious diseases, were beginning to yield to a mysterious new science known as bacteriology, and death rates were falling while waves of immigrants were coming to the United States bringing the vital and creative forces of the "melting pot."

World War I came and went. Then out of the blue came the stock-market crash of 1929 and the beginning of the Great Depression. The American economy had had its ups and downs before, and, having been born in revolution and having survived a long and bitter civil war, the nation was no stranger to trouble. But this was something new in the American experience. It was disillusionment.

From dizzy prosperity, the nation suddenly was plunged into a nightmare of shattered fortunes and general economic chaos.

Although for individuals neither trouble nor abundance is ever evenly distributed, trouble in the 1930's was so widespread the whole nation — even the American system itself — was in trouble. The effect on the attitudes of the American people toward social welfare was electric. Almost overnight, as the implications of the crisis sank in, public concern for public welfare had become virtually universal — generated by widespread frustration and disbelief and the powerful stimulant of virtually universal self-interest.

Before the pieces were to be got together again, there were to be extensive debates over the means that should be employed to save the situation — even contentions that no Federal action was necessary. But there was no question, either during the crisis or later, where the majority of the American people stood. They stood for survival and innovation. They wanted the Federal Government, as the instrument of all the people, to take whatever steps were necessary to carry out the general welfare clause of the Constitution — as a means not only of dealing with the immediate situation but of making sure for all time that nothing like this could ever happen again. Social welfare as a major Federal responsibility had come upon the American scene — and come to stay.

The Social Security Act of 1935 was the cornerstone in a new approach to meeting human needs, establishing, for the first time, Federal aid for the aged, the blind and dependent children. Over the years, the program has been improved and extended. Today, three decades after the passage of the original Social Security Act, social welfare in this country is undergoing its second major transition. But this is a development of a very different character from that of the 30s. This time there is emerging a widespread public interest in social welfare not in a time of national economic crisis but in a time of unprecedented national prosperity.

When this transition has been consummated, it is reasonable to expect that social welfare will be performing functions that it is not performing today and that it will be performing these functions, not with the general public's grudging acquiescence, but with its enthusiastic encouragement and support.

The transition now getting underway in social welfare is the outgrowth of many evolutionary — almost revolutionary — changes in our own society and around the world. Therefore, it is important that we first consider in broad outline the nature of these changes, the problems they create, and the programs now in being or proposed for dealing with these problems. The balance sheet will show that, despite substantial effort, grave social problems continue which need to be remedied.

Social welfare can and should play a far more important part in promoting social and economic well-being of the nation than it has in the past. Why this is and, in general terms, how it can be achieved, is the purpose of this article.

The Century of Change

When the 20th century has finally run its course, it will be remembered for many astonishing things — for the atomic bomb, for the first manned flight into outer space, for electronic data processing, for automation, cybernation, and such other wonders as the crowded years between now and the dawn of the 21st century manage to produce.

But perhaps the one thing the 20th century will untimately be remembered for most of all will be the sheer pace of change that marked its course. Already in this century, the pace of change has had some remarkable effects on our society and the rest of the world. In a matter of decades, the United States has been transformed from a predominantly rural to a predominantly urban society. And the concentration of population in urban areas has already reached the point where almost continuous urban-industrial complexes have been created up and down both coasts and are now beginning to form in many other areas as well.

In the meantime, changes of great social and economic significance have been occurring within these urban-industrial complexes themselves. The central cities are fighting obsolescence and decay, many against seemingly impossible odds, while population shifts continue to seek ever-newer satellite communities farther and farther from the central cities, often leapfrogging predecessor satellites that have had their brief hour of popularity and have started on the way down. With remarkable speed, the satellites, in turn, become less and less tied to the parent cities and begin to develop economies, cultures, interests — and, of course, problems — of their own.

The growth of the population, but more especially the continuous migration from country to city and in ever-widening circles from city to country — these are among the more visible manifestations of the economic and technological forces at work in our society and in many other societies in recent decades.

Masked by but not suppressed by the hustle and bustle, by the glitter and glass, the gleaming automobiles, and other signs of the affluent society are many social problems as old as history, others as new as the shining office building rising from what was once a slum.

Social Problems Today

Our social advances have nowhere near kept up with the great forces of science and invention that are changing the world at a time when — because of these very changes — social evils grow more complex.

The social illnesses which today impede American progress generally victimize individual citizens of all ages, of all races, and in all geographical areas of the nation.

Some can strike hard at any family, regardless of its financial circumstances. But mostly the great social evils of our times choose as their victims those least able to defend themselves from attack: the dispirited poor who live in the slums of our central cities and in stricken rural areas.

Some children live dangerously in the months before they are even born. Their mothers, in low-income groups, do not receive the health care they need for themselves or for their babies. The babies stand a high risk of coming into the world mentally retarded or with other handicapping conditions that will last all their lives.

Five Million Children Unprotected

Those who are born with good physical health and the potential for intellectual development often fall back. Their proper nourishment — physical and mental — is beyond the ken of mothers who are so illiterate as to be unable to read a book on the care of babies, mothers who have no awareness of community resources that could offer help.

Many children die or become crippled or weakened by diseases which are preventable. Five million children under five are totally unprotected against polio, diphtheria, whooping cough, tetanus and measles. Most of them are poor.

Many thousands of children have very little chance for what Abraham Lincoln called "a fair start in the race of life." Their parents — on whom children ordinarily depend for help and guidance — are themselves shaken and uncertain, illiterate, unskilled and unemployed.

Nothing in their early years prepares these little children for school. And their teachers, more likely than not, are not prepared for them. The children start down a predictable road of falling behind their classmates, becoming early school dropouts, unskilled as their fathers, and unemployed. They drift around as uncertainly as their parents in a world that has no place for them. Some become delinquent. Some have babies born out of wedlock.

The social problems that began before their birth lead to social problems of childhood that in turn may assign them to lives of poverty — all their lives.

Society Can Stand 'Accused'

This is the story of the modern child of the city slum.

This also is the story of the modern child of depressed rural areas.

The story of the child of migrant workers, or of poor Indians, is at least as bleak.

Could they speak for themselves, each child could say "I accuse" — and accuse a whole society of tragically failing to use the resources necessary to salvage a human life.

Statistics indicate the magnitude of that failure:

- Nearly 400,000 children under 12 years of age have no daytime or after school supervision. The keys they carry open doors to empty rooms — empty because their mothers work and cannot afford to pay for their supervision. These children, just hanging around, are in clear and present danger.

- Approximately 13 percent of youngsters under 18 years of age are in homes broken by death, divorce or desertion.

- More than 700,000 young people between 16 and 21 years of age are out of school and out of work. Many others with potential ability are employed in dead-end jobs.

- Almost a million youths drop out of our elementary and secondary schools each year; 175,000 of them fail to complete elementary school.

- Nearly a half million children a year are involved in delinquency cases serious enough to involve juvenile courts, and this is not counting traffic offenses.

- In 1962, more than 245,000 babies were born out of wedlock, 51,200 of them to girls under 18 years of age.

In its January, 1964, report, the President's Task Force on Manpower Conservation stated that one out of every two selective service registrants called for preinduction examination was found unqualified, that 40 percent of the mental rejectees never finished grammar school, and four out of five did not finish high school.

"A major proportion of these young men are the products of poverty," the report stated. "They have inherited their situation from their parents, and unless the cycle is broken they will almost surely transmit it to their children."

Some Helpless in City Slums

Many of today's families are part of the tremendous social upheaval that brought migrants from depressed rural areas into the slums and "gray" areas of our great central cities. They were looking for a better way of life for themselves, better opportunities for their children. For many, the dream came true. They found jobs, encouraged their children in school — and broke the cycle of dependency.

Not so for others. Often burdened by illiteracy, untrained for available work, perhaps suffering from health problems and disabilities — grim legacies of years of neglect — they sank deeper into the mire of the poverty of city slums, helpless in a hostile environment that neither needed them nor seemed to care particularly what happened to them.

Strangers to the changing world of work, to the motivations, opportunities and culture of the suburbs, to the bustling commercial life downtown, they are today isolated and generally invisible to busier and prosperous people.

For these poor families, education — basic reading, writing and arithmetic — is necessary as a preliminary step leading toward training for the kind of employment available and for which they are capable.

But the task is formidable. There are eight million adults in this country 25 years of age and over who have completed less than five years of school. They are part of a larger group of over 23 million Americans 18 years of age and older who have completed less than eight years of school.

Among the poorest families are those receiving public assistance under the program of aid to families with dependent children. Three million children are involved. In 1901, there were 773,000 mothers in this program, of whom 14 percent had had less than five years of school. There were some 200,000 fathers in the program, of whom about 35 percent had gone no farther than the fifth grade in school. More than half of the 269,000 Puerto Ricans over 25 years of age who live in New York City have less than eight years of education; of the more than 100,000 Spanish-Americans living in San Antonio, Texas, 69 percent had not completed an eighth grade education.

And so it goes.

To be poor usually means being at the lowest level of our society not only economically but educationally and culturally as well. Together, these are well-nigh insurmountable handicaps.

Illiterate adults, generally inarticulate and disorganized, are in no position to make an effective claim upon our educational institutions — already hard pressed to provide teachers and classrooms for the masses of children and young people.

Poverty, Dependency Way of Life

A man or woman who can't take a message over the phone, write a grocery list, or take an order for meals is barred even from many unskilled jobs.

Poverty and dependency become a way of living — accepted mutely by some, resented with hostility and anger by others.

The poor — as well as those living on the thin edge of poverty — grow more fearful as they grow older. They fear the aches and pains of advancing years and the almost inevitable serious illnesses they cannot afford to have treated. Nor can millions afford the protection of hospital insurance.

They live precariously. The 1960 Census of Housing reported that 2.2 million housing units were occupied by single elderly men and women with incomes of less than $2,000 a year. An additional 3.2 million housing units were occupied by older people with incomes of less than $3,000 a year. Thus, 5.4 million housing units were occupied by older men and women who were poor. About one-third of the almost 18 million men and women 65 or over live in houses that should be "extensively repaired, rebuilt, or torn down."

Poverty, for many of the aged, means managing to scrape along, to live respectably — on one meal a day.

Babies, children, young people, adults and the aged all suffer the setbacks, the defeats and frustrations, and the hardships of living day in, day out through the endlessly dreary cycles that are an inherent part of poverty.

One of the prevalent and persistent causes of poverty is physical or mental disability which can strike at any age and can compound an already intolerable situation for the poor or become the root cause of ultimate financial collapse even among the affluent.

Here again, statistics give an indication of the extent of human problems involved in disability:

- There are 5.4 million mentally retarded people of all ages in the United States. Their number grows. Unless major advances in prevention are made, by 1970 more than six million people will be mentally retarded, at least half of them children.

- About 530,000 patients overcrowd and are inadequately cared for in public mental hospitals.

- About 2-1/2 million disabled Americans need vocational rehabilitation services if they are to be successful in getting and holding suitable jobs. They remain disabled and unproductive at the expense of every local government, every State government, and our entire country.

Among adults, disability halts employment, eats up savings, breaks up families and robs the economy of many able people. Among youth, disability often intervenes to shut off a productive and useful life before it is even well started.

Escape from poverty depends upon diverse factors which cluster around central goals: good health, the right kind of education and excellence in education, vocational rehabilitation for the physically and mentally handicapped, job training for youth and adults and the availability of employment opportunities.

But even among the poor, families vary in the kind of help they will need to emerge from poverty. Side by side, living in the same kind of housing, on the same low income, two families may be as divergent as the poles in their predictable futures.

One family may be "temporarily" poor due to hard luck of one kind or another — or simply because the plant shut down. This family knows what community resources are available for health, for education, or to help find jobs, and aspirations for the children still run high. They may need some help — or they may not — to find an exit from their difficulties.

Help Needed from Many Directions

But their neighbors may be living in another world — a world of ignorance and apathy, crushed by the helplessness of years of poverty and lacking any resources to combat it.

For the parents and for their children, help from many directions may be needed to break the bonds and the cycle of poverty.

The focus on problems of the poor brings into view the needs of all members of our society for opportunities to reach their highest potential and make their greatest possible contribution to our country's advancement.

The healthy physical and intellectual development of a brilliant child of affluent parents — a child who may someday show the world how to tap the resources at the bottom of the ocean — is as important as the development of a brilliant poor child, who may some day be exploring the stars. Each needs full opportunity to develop the priceless gift of curiosity that children have, their gift of wonder that may be lost.

The provision of full opportunities for all children, along with a kind of nationwide encouragement and appreciation of each child's individual worth — regardless of his race, religion, or start in life — will bring rich rewards to the America of the future and to the world.

The families of affluent, prosperous and busy America are not immune to the social evils that strike hardest against the poor; they simply have the money to bear the brunt more easily. But for them, as well as for the poor, our society should prepare safeguards against human problems that can enter any doorway and lay waste valuable human resources: alcoholism, mental retardation and mental illness, juvenile delinquency, unfinished education, unwed parenthood among teenagers, the killing and crippling accidents that now are the leading cause of death among all people under 35 years of age, and a host of other problems.

The Federal Response

Federal interest in education goes back to the earliest days of the Republic and in health almost that long.

Over the years, Congress has established a number of major programs financed in whole or in part by the Federal Government to promote the health, education, and economic well-being of the American people, young and old. In the Department of Health, Education, and Welfare alone there are some 150 such programs. In addition, the Department of Agriculture school lunch program helps improve diets of about 14 million children. The Labor Department assists millions with unemployment insurance and employment services. The Veterans' Administration exists to help meet the welfare needs of ex-servicemen and their dependents. Area redevelopment and accelerated public works programs to bring about long-term economic improvement and generate new jobs are conducted by the Department of Commerce. The Housing and Home Finance Agency has important responsibilities for improving the living conditions for many thousands of families.

The programs of the Department of Health, Education, and Welfare are conducted by about 83,000 employees in seven agencies — the Public Health Service, the Office of Education, the Welfare Administration, the Vocational Rehabilitation Administration, the Social Security Administration, the Food and Drug Administration and Saint Elizabeth's Hospital for the treatment of mental illness.

The Public Health Service responds to the changing and expanding health needs of the people in a number of directions, including particularly research, training of health manpower, promoting environmental health, and encouraging and supporting community health services.

The health research operation — the largest in the world today — has as primary targets the worst killers and cripplers, such as heart diseases and cancer, although research is conducted in many other diseases that beset mankind. Federal funds for health research have increased from $87 million in 1942 to $1,675 million today.

Health Resources on Increase

The Public Health Service also plans, conducts and coordinates comprehensive nationwide programs to control cancer, diabetes, arthritis, heart disease, neurological diseases and long-term chronic illnesses of the aged. As one measure of the success of this program, one in three cancer patients is now being cured, and, with early diagnosis, one in two could be cured.

For about 18 years, Federal support has been given to the building of badly needed hospital and other health facilities under the Hill-Burton Hospital Construction Act. During this time, more than 290,000 hospital and nursing-home beds have been added to the health resources of the country. Since 1956, increasing emphasis has been placed on the building of nursing homes and other facilities for long-term chronically ill patients — particularly older men and women.

In 1961, the Community Health Services and Facilities Act authorized projects to test and demonstrate new or better services in communities, particularly health and related services for the patient in his own home. Well over a hundred projects have been launched throughout the country with the help of about $13 million in Federal grants. This program is needed by most communities in the country, for community health and medical services generally have not kept abreast of new knowledge or community requirements.

On still another front, through the Health Professions Educational Assistance Act of 1963, our society can begin immediately to overcome two gaps that have impeded progress: we can help our medical and related professional schools expand to take care of more students and we can attract more bright young men and women to choose careers in the field of health, where their talents are greatly needed.

In a three-year program, the act provides for Federal matching grants of $175 million for the construction of teaching facilities for physicians, dentists, nurses, public health specialists and other health personnel.

Problems of environmental health are under increasing attack. The Federal Government supports a multi-million dollar program, expanded by recent legislation, to combat water pollution problems throughout the nation, and significant progress is being achieved. Meanwhile, a new program with funds to be provided under a 1963 law is being formulated for combating air contamination which now affects all urban areas of the country and many rural areas as well.

A bold new program against mental illness and mental retardation is now beginning to take shape. Based on 1963 legislation, it authorizes — along with research and other projects — the development of a nationwide system of community centers for the mentally ill and facilities for the mentally retarded. The program will utilize, for the first time on a large scale, the treatment values inherent in home and neighborhood environments.

Despite the problems in providing health services, considerable progress has been made in improving the health of Indians and Alaska natives since 1955 when the Public Health Service was given this responsibility. Between 1954 and 1962, the Indian infant death rate declined 36 percent to 41.8 deaths per 1,000 live births, but it is still 70 percent higher than the rate for infants in the population as a whole. The rate of newly-reported tuberculosis cases dropped 54 percent among Indians during this time.

New Health Problems Emerge

Altogether, scores of public health programs, many with strong State and community participation, extend the capabilities of science and modern medical practices over the country, even to the remotest Arctic settlement.

But as some health problems are resolved, new ones emerge to test our wisdom, ability and resourcefulness. The overriding factors today are our rapidly aging population, giving new prominence to the chronic diseases and the health problems associated with an increasingly complex industrial and social environment.

These factors, too, greatly increase the responsibility of the Food and Drug Administration, which for a quarter of a century has stood as watchdog for the American consumer, protecting him from products which might harm his health and from marketplace practices which might damage his pocketbook.

The agency's ability to discharge this responsibility was strengthened substantially two years ago by extensive revision of the Food and Drug Act. Manufacturers of a new drug, for example, now are required not only to establish safety but produce evidence of claimed effectiveness.

Protection Taken for Granted

The need for a high order of protection is clear in a society where thousands of new drugs are introduced each year. A major and growing environmental problem is the large-scale use of poisonous chemicals in industry, in the home, and on the farm.

Much of the work of the Food and Drug Administration is so impersonal in nature that the American people generally take for granted the tremendous health and consumer protection it affords.

The Federal-State program of vocational rehabilitation, on the other hand, operates in a highly personal way. It reaches out to bring new meaning into the lives of the handicapped. In 1920, when the program began, vocational rehabilitation was considered primarily a training program for workers who had been injured in industry. Today an expanded program means treating, training and finding jobs for all who are disabled, whether their disabilities are physical or mental — the blind, the deaf, the amputees, the crippled, the cardiacs, the mentally retarded, the mentally ill who have recovered, and those with cerebral palsy.

Part of the funds available for rehabilitation is used to train new professional rehabilitation personnel and for research to find new techniques in rehabilitation.

Not long ago the Vocational Rehabilitation Administration set for itself a goal of 100,000 rehabilitations a year. Today the sights are on 200,000. But this number is small compared with the estimated 2-1/2 million disabled men and women who could benefit from this humanitarian and economically sound program.

Education Aid Growing

From the start of our Republic, education was deemed an essential tool for the fulfillment of national purposes. It still is. Over the years, Federal aid for education has taken diverse forms to help our schools respond to changing needs in a society growing increasingly complex.

A strong resource for education is the Office of Education itself. Perhaps nowhere else in the world is there a greater assemblage of educator-consultants or a larger library of studies of problems and research findings associated with education. The Office's traditional role of guidance and leadership, for which it was established nearly a century ago, grows increasingly important as pressures rise for making improvements in school organization, curriculum content, and teaching methods, particularly for the economically and culturally impoverished.

Since 1950, legislation — recently extended — has authorized Federal aid for the construction and operation of schools in areas with large numbers of Federal employees. Since then, about $3 billion has been granted to schools throughout the nation for these purposes.

Since 1958, with the passage of the National Defense Education Act, the Federal Government has helped schools strengthen the teaching of science, mathematics and modern foreign languages, and has helped to provide the guidance and counseling services so important in motivating students toward their highest potential. The student loan program, since 1958, has advanced about $330 million to almost 500,000 talented young people who might have been barred from higher education without this help. And last year the Congress expanded this program substantially.

Under the 1958 law, fellowships aimed primarily at overcoming the shortage of college teachers were authorized, and since 1959 some 8,500 have been awarded. The act also provides help for area technical schools, to help the nation overcome the shortage of critically needed, skilled technicians.

Legislation enacted last year will back expansion of colleges and universities over the country with almost $2 billion during the next few years. New community colleges will be built, not only to help take some of the pressure off the present four-year colleges but to open opportunities for higher education to young people who might otherwise not be able to go beyond high school. Help will also be given for the construction of undergraduate classrooms and other facilities at existing junior or community colleges.

The Federal Government has aided vocational education since 1917, when this educational need of the times was brought into focus by the sharp demands of World War I. With this help, vocational education became an essential ingredient in building the resources, capacity and industry of a society on the verge of tremendous change. Now vocational education will be modernized to help it keep pace with today's changing world.

More Funds for Vocational Training

The 1963 legislation breaks with the past practice of providing Federal support for training in specific occupations. Now more funds than ever before will be used for vocational training in the kinds of jobs that are available. Construction of vocational schools, including residential schools, is being projected with Federal assistance for the first time. The authority to make payments to help vocational students remain in school while working part time will not only help prevent school dropouts but will help increase our supply of trained manpower.

Other educational gains have come in the past few years. Some benefit large segments of the American population, such as Federal grants to establish educational television stations and to improve library services in both rural and urban areas. Others look to the long-neglected plight of the handicapped and seek to train qualified teachers for children who are blind, crippled, deaf or mentally retarded.

In these and other important ways our educational system moves forward.

Our welfare programs, too, have passed important milestones. They now have additional resources to turn millions of Americans from lives of chronic dependency to lives of independence with full participation in the advancement of an affluent society. This ability — an historic development in social welfare — came about as a result of the Public Welfare Amendments of 1962. They represented the most significant advance against poverty by the Federal Government since the passage of the original Social Security Act of 1935.

Attacking the root causes of poverty, Federal financial help and other incentives are offered to States and communities to provide preventive services where possible and rehabilitative services when indicated not only to families already dependent but to those whose circumstances make them likely to become so. Thus, the new law encourages the States to seek ways to remove the causes of poverty instead of merely alleviating its symptoms through subsistence payments.

Specifically: the Federal Government will put up three dollars for each State dollar spent in the application of techniques for preventing dependency or replacing dependency with self-reliance. Funds available for certain welfare services, in other words, may now be doubled without additional State spending.

Fifty-three States and other political jurisdictions have qualified for an increase of from 50 to 75 percent in matching funds for use in at least one category of assistance. In general, the services to be provided are those that deal with the most persistent problems of dependency such as desertion, unmarried parenthood and unemployment, or services which help the children of the poor with their own special problems.

Of particular long-range importance is the new law's authorization of 75 instead of 50 percent support of the cost of training social workers and other personnel so desperately needed.

Plan for Each Dependent Child

The amendments also doubled over the next several years Federal funds authorized for State child welfare services. The present ceiling is $25 million. New funds also were made available to provide day-care services for the children of working mothers. This was followed in this year by a similar increase in funds for child health and crippled children's services related to the new program to combat mental retardation.

Of major importance in the effort to break the cycle of dependency is the requirement that a plan must be made to meet the specific needs of each child who is dependent, a plan using all community and other resources for health and education — and for personal encouragement.

Over the years, the social security system has been strengthened and improved. Benefit payments have been increased a number of times as living costs rose, and widows and children and the disabled were made eligible for benefit payments. Today some 20 million men, women and children are receiving social security benefit payments which total well over $1 billion every month.

But major needs persist — and grow.

One of the most serious problems our country faces — and one of the most easily resolved — is the need to provide a means to help older men and women obtain the hospital and related health services they need.

Their need is profound. Under the Kerr-Mills program, medical assistance to the needy aged and to the "medically indigent" offers complete medical care in a few States, but in many States that have plans, only limited help to older men and women is available. A substantial number of States have no medical assistance plan for the aged, even with the Federal Government supplying 50 to 80 percent of the money.

President Kennedy proposed and President Johnson strongly supports a program of hospital insurance for the aged through social security. This proposal would represent a sound investment for all Americans of all ages. Financed by small, regular contributions to the social security system from working people and their employers, this plan would provide a foundation on which the prudent person of modest means could build other forms of health insurance. Younger working people would have the satisfaction of knowing that their health needs in their own old age would be assured, and older people would be able to obtain the care they need without having to submit to the indignities of a means test or causing financial hardship for their own children or grandchildren.

This proposal would be a strong weapon against poverty.

So, too, will the end of discrimination — as embodied in the President's program — be a major forward step in combating poverty as well as a host of other social handicaps which have so long been the lot of so many Negroes in our society. The civil rights program will enable all our citizens to attain equality of opportunity and the rights acquired by the majority long ago: the right to vote, the right to employment without discrimination, the right to full use of public accommodations.

Since the causes of poverty are complex, the solutions must be comprehensive. President Johnson's program to combat poverty, embodied in the Economic Opportunity Act of 1964, covers a wide but interrelated range of measures:

- A job corps to provide outdoor work on conservation projects, job training and basic education to young men between 16 and 21 years of age — youths who stand little chance, otherwise, of "finding" themselves in a work-world where work skills are increasingly needed.

- A work-study plan to enable extremely needy students to go to college and stay there until they graduate. Federal funds would pay for their part-time jobs.

- A work-training program to provide full or part-time working experience for young men and women, to train them for full-time employment on their own, and, where possible, to encourage them to continue their education.

- Community action programs to receive help in their efforts to combat poverty, particularly in the areas of education, health, and the counseling of families.

- Farm investment programs to provide loans, grants and advisory services to help raise the income-producing capacities of poor farm families and to open up to them new opportunities to make money.

- Business loans to establish, hold and expand promising business ventures in localities beyond the reach of the Area Redevelopment Administration.

- Experimental, pilot or demonstration projects to stimulate adoption of programs providing constructive work experience or training for unemployed fathers and other members of needy families with children.

- An opportunity for volunteers to provide services to others through work in the new poverty programs as well as in existing public programs and related activities which have to do with poverty.

These efforts represent a first step in a series of many that will be needed before poverty is banished from American life.

Welfare of the Future

Whether they think in terms of the next century or the next decade or only next year, those engaged in the task of advancing social welfare can rely with absolute certainty on one thing — that the task will become more exacting, more complex day by day, week by week. They look about them today and see a social-economic system at once so vast and so intricate that even now there is no satisfactory means of measuring the sum of the personal and family problems the system generates.

Yet, this is only a beginning. Further growth of the population and its continued urbanization, continued deceleration in the demand for unskilled labor (a factor aggravated by, rather than relieved by, continued seasonal demands for various kinds of unskilled and semiskilled labor), increasingly insistent demands for a better break in life on the part of those who have not fared well under the American system, the ever-increasing interest with which people all over the world will be watching to see how well the United States, with its unprecedented economic, scientific and technological resources, does in coping with the age-old problems of illness, ignorance and poverty — these are some of the great certainties that the future has in store.

To say nothing of the uncertainties they suggest, these are large orders for social welfare.

So fast is the pace of change, one need not look very far down this road to conclude that social welfare is entering a period of unexampled difficulty, unexampled opportunity. It is imperative that both be kept in perspective.

This country's total expenditure, private and public, in health, education, social insurance and financial assistance to the needy now exceeds $100 billion a year — one-sixth of the gross national product. But despite this expenditure, there are serious, and, in a number of areas, pressing social needs in the nation today. Does this automatically mean that we should increase our total expenditures for social welfare? There are those who will answer 'yes' and those who will answer 'no'. But the matter is not quite that simple. There are a number of factors — both practical and moral — that need to be taken into account in arriving at a sound determination whether a particular level of expenditure for health or for education or for economic security — or for all three together — is too high, too low, or just about right.

Can We Afford to Spend Less?

There is abundant evidence that, in the long run, neglect of social problems can be a great deal more costly than their prevention or cure. The question, therefore, is not solely one of how much the nation can afford to invest in human resources. The future well-being of our society also turns on the question of how little we can afford for social welfare. Can we afford to spend less on health than is necessary to make the benefits of medical science readily available to all who need medical attention?

Can we afford to spend less than is necessary to safeguard the purity of the water we drink and the air we breathe? Can we afford not to spend more for education when we know that millions of able young people fail to receive the education they want and need? Can we afford this loss at a time of incalculable — and rising — demands on the nation's intellectural resources? Can the richest nation on earth, the richest nation in history afford levels of expenditure to promote economic well-being that leave millions of its people in poverty?

Such expenditures for social welfare are expenditures we cannot afford — not because they are too great but because they are too small. There are two compelling reasons why the world's greatest democracy cannot afford to spend too little for social welfare. One is a moral reason, and today it is becoming more and more apparent that the conscience of America is disturbed by the knowledge of neglected social ills in a time of ever-increasing plenty, a time of unprecedented scientific progress. The other reason that the United States in this day and age cannot afford to spend too little for social welfare is that, in the long run, neglect of social problems costs too much in human values that could be conserved and too much money that could be put to many other good uses. The costs of such social problems as alcoholism, juvenile delinquency, mental retardation and mental illness, school dropouts — to name a few — run to many billions of dollars each year — billions of dollars that, for the most part, represent a loss to the economy.

Expenditures Nearly Tripled

The point is entirely consistent with the progress of social welfare in this country. As the means for meeting social needs have become available, both public and private expenditures for the purpose have been increased. Just in the last 15 years, total public and private expenditures for health, education and welfare have nearly tripled — rising from $35 billion in 1949-50 to last year's figure of $101 billion.

During the same period, the population of the United States increased by over one-fourth — from 151 million in 1950 to 191 million at the beginning of 1964. The aged population, 65 years and over, increased by nearly one-half, from 12 million to nearly 18 million. An even sharper increase in the school age population has occurred as a result of the post-war baby boom. The age group 5-17 has increased by over 50 percent since 1950, from 30.7 million to nearly 48 million. The nation's total output of goods and services has also more than doubled in this period (from a gross national product of $285 billion in 1950 to $608 billion at the beginning of 1964).

Fifteen years ago, combined private and public expenditures in the three broad categories of social welfare were almost exactly comparable. For health, the total was approximately $12 billion, while it rounded off at $12 billion for social insurance and welfare. Education trailed at $11 billion.

By last year, the situation had changed markedly. In that year we find social insurance and welfare leading both the other categories by substantial margins, and we find that health, in turn, has forged well ahead of education.

The totals in round numbers: health, $33 billion; education, $28 billion; social insurance and welfare, $41 billion. During this same period, old-age, survivors and disability insurance benefits alone rose from less than $1 billion to approximately $15 billion, whereas cash public assistance payments rose only gradually — from $2.4 billion to $4.2 billion.

What will the order of magnitude of expenditures in these fields be a few decades from now? What will be their relationship, each to the others?

With an expanding economy and a steadily growing population in prospect and with many social problems on the increase, it is not incautious to speculate that expenditures in the fields of health, education and welfare, and in other fields of importance to human happiness, will continue to increase. Additional funds for such purposes will inevitable be forthcoming — though perhaps not always in the amounts that everyone could wish — as long as the money will serve a useful purpose and can be provided without an undue strain on the economy.

Goal is Getting Maximum Benefit

The big question for the future in an expanding economy is not whether additional funds will be available for social welfare or even in what amounts.

The big question is how these funds can be used to produce the maximum benefit for society. The closer we come to an effective answer to that question, the farther removed will be any question about the amount needed or where the money is coming from for social welfare.

The answer to this question is not wholly up to the public and private welfare agencies, but to no one in the broad field of social welfare is it a greater challenge. We pride ourselves as a people for decreeing, for example, that no child shall go without the necessities of life — food, clothing and shelter. But thought also must be given to the needs of children far beyond their immediate wants. The public or private welfare agency, if it has time to think about it, is quite aware of these larger needs and of the social and economic implications of neglecting them.

The example can be multiplied by as many problem situations in our society as one can count. Public welfare is frequently cited as a cause of illegitimacy. Although the contention is hard to square with the economic facts of life, it is not easy to refute because the facts are subordinated by the image which persists in the minds of many of the indulgent do-gooder handing out the taxpayer's money to immoral, lazy women who use the device of having children out of wedlock as a substitute for work.

Call the indulgent do-gooder an overworked do-gooder, and the picture that is presented to denounce both unwed parenthood and public welfare is not without some credibility. If the typical welfare worker were a person with the time, the talent, the training and had the necessary resources to do something constructive about illegitimacy, the public would not only have a better impression of public welfare but we also would be making better progress against the problem of illegitimacy in the bargain.

Social Worker, Educator Share Problem

Understandably, the problem of school dropouts is generally placed on education's doorstep, but of course this is not altogether an educational problem.

When, as a people, we have come to realize that where we can least afford the poorest schools is in the slums, it will be far easier, certainly, to keep slum children in school. When children drop out of school it is not simply a problem for the educator. It is a problem for the social worker and the educator. It is a problem for our whole society. And for that precise reason, who is in better position to understand the total problem, and who is in better position to know what would be most effective in attacking the total problem than the staff of the public or private welfare agency?

Perhaps in the present state of social welfare the question will not hold up well as phrased. Perhaps it should be put this way: who should be in better position to see a social problem in all its aspects and implications than the social worker? Health problems, education problems, financial problems have a way of occurring together, one contributing to the other. It follows that a health problem is not necessarily the concern solely of the health agency, the education problem the concern solely of the education agency, the financial and personal problems the concern solely of the welfare agency.

Social welfare of the future will be a means of calling into play all the resources that are needed to prevent or cure social problems, not as it too often is today, a means merely of calling into play only those resources needed to alleviate the symptoms of the problems.

The pioneering work that has been done by many welfare agencies, especially the private agencies, in providing services designed to deal with the causes of social problems is one of the major factors in paving the way for the transition in social welfare that is now underway. There is, however, a long road ahead.

Fortunately, the trend toward preventive and remedial services is now at last becoming established as a regular function of public welfare programs. The 1962 welfare amendments, as noted earlier, represent a tremendous step forward in this regard. The new requirement that an individual plan be developed for each child receiving help under the program of aid to families with dependent children is, in itself, one of the most significant developments in the history of public welfare in this country.

Comprehensive Planning Ahead

This approach to the problems of dependent children, contemplating as it does the use of any and all resources, the help of any and all disciplines needed to carry out a constructive course of action might well serve in microcosm as a point of departure for the development of a more effective approach to all social problems of the community.

Why not, after all, a plan? Why not a comprehensive plan that takes into account all the identifiable social needs of the community and all the identifiable resources available, actually or potentially, for meeting those needs?

As the population grows and our urban way of life becomes more and more complex, such comprehensive planning — which, though on a larger scale, is not greatly different from the kind of planning life insurance companies rightly urge on heads of families — will become an absolute necessity in communities large and not so large all across the land.

The criteria for assessing the social needs of a community are clear. America was founded on the concept of equal opportunity and to a considerable degree has applied that concept in its everyday affairs. The time has come to apply the concept across the board — in health, in education, in employment, in housing, in recreation, in every aspect of our national life. We should go further: in the national self-interest, we should think of social welfare in terms of creating environments which actually stimulate and encourage individuals and families to want and seek opportunities for self-advancement. The depressing influence of the slum hurts more than those who dwell there; it hurts us all.

Faces Far Greater Responsibility

Again, who is in better position than those experienced in the field of social welfare to help the community assess its social needs and the resources available for meeting those needs?

If the nation is to receive the maximum returns from its large — and growing — investments in health, education and welfare in a society becoming steadily more crowded and more complex, the social worker will need to be equipped for and to be assigned far greater responsibility in the conduct of community affairs than has been true heretofore.

The noted British economist, Barbara Ward, in a recent article on the problems of the city, said: "Resources are not the problem. It is the shaping imagination, the liberating idea. With it man's abundance can be used to make his urban life worth living. Without it, the city may be, in its slower way, as lethal as the bomb." (The New York Times Magazine, April 19, 1964.)

The great American architect, Edward Durell Stone, made this bitter observation: "In 50 years — we do everything rapidly — we've converted this country from one of the most beautiful on earth to one of the ugliest."

He went on to say: "We see our forests despoiled, our countryside stripped of trees but not of neon billboards, sprawling junkyards and jerrybuilt diners, drive-ins and used-car lots — any catch-penny material device.

"In this period of prosperity and abundance, we can afford everything but beauty."

Beautifying Nation is New Goal

While the question of how to achieve and maintain ample employment opportunities in this country in the years ahead is somewhat beyond the scope of this article, perhaps by coincidence the economist and the architect, looking independently at the problems of modern society from their respective viewpoints, have hit upon a solution.

There have been suggestions in recent years that a new goal for America might well be that of beautifying the nation, not just parts of it but the whole nation. Certainly as automation and cybernation take over more and more of the productive tasks of the nation, new fields of employment must be developed, useful fields of employment in which the push button cannot be substituted for human hands and hearts and minds.

The variety of jobs — and the number of jobs — that would be involved by an all-out attack on urban and rural ugliness in America would be virtually infinite. Obviously it would not be easy to work out an economically feasible basis for such a program — but America has not been noted for shunning the difficult once it has had its heart set on something.

The time can come — indeed it can be argued that, if America is to survive, the time must come — when each of its citizens will have ready access to the blessings of the latest medical services and techniques, when each of its citizens will have ready access to all the education and training he wants and can achieve, when each of its citizens will have a sufficient income to live in dignity, peace of mind, and enjoyment.

War On Poverty Must Be Won

America must not, dare not settle for a lesser goal.

As a first step, the unconditional war on poverty declared by President Johnson can and must be won. But there must be a goal beyond the elimination of poverty — the goal of positive health and happiness for every citizen.

The great American dream has come true for millions of Americans but not for all. It can come true for all only if America's reach continues to exceed its grasp — not by inches but by miles.

It was suggested earlier that there are levels of expenditure for human well-being that a modern democracy cannot afford — not because they are too high but because they are too low.

Perhaps it will turn out that our society not only can afford beauty but that it cannot afford ugliness. Perhaps it will turn out that the building of a beautiful America will be the ultimate answer not only to the social problems of an advanced industrial society but to its economic problems as well.

From the dawn of history, mankind has sought, with varying degrees of success, either to adjust to his environment or to rearrange his environment to suit him. The process has gone on continuously through the ages, but with such glacial slowness as to be almost imperceptible during any age. In recent years, changes in the environment in this and other advanced countries have been occurring with such speed as to be virtually out of control.

America's answer has been the rapid proliferation and growth of all sorts of programs related more or less directly to basic principles of social welfare. There can be no question that these programs have produced immeasurable benefits to our society. Yet millions of lives continue to be blighted by grave social and economic problems — problems that are a drag on the nation's total progress.

Stakes Are Higher Now

Many times in the past our society has acted boldly and with vision to advance the general welfare.

One wonders whether or not in this day and age, too, it will not be necessary for us to chart a bold new course if we are ultimately to find our way to the bright new world of tomorrow.

Whatever course is ultimately chosen, those who work in the field of social welfare should be thinking long, long thoughts. The stakes are higher than at any time in the history of social welfare — higher than at any time in the history of America.

AGING AND BLINDNESS

by Wilma Donahue, Ph.D. and Douglas C. Mac Farland, Ph.D.

It is essential to identify certain characteristics which are found in any large group of individuals 65 years or older so that, when we study blind persons in the same age group, we do not attribute these characteristics to blindness.

Blindness, of course, increases the difficulties encountered during the aging process but cannot be held accountable for the changes which are normally associated with growing older. Conversely there are disabling conditions caused by blindness which cannot be removed or even substantially improved by the usual services provided for the aging.

The first part of this report will deal with social characteristics of the aging population; the remainder will be directed toward identifying the problems of the older blind person, differentiating between those that result from the normal process of aging and those that are attributable to the disability of blindness. We will suggest methods for dealing with both problems and means for providing needed services.

SOCIAL ASPECTS OF AGING

Emergence of Aging

In all highly developed societies there is a major increase in the number and proportion of older people in the population. This change results from the interaction of a number of factors, including the natural increase of population, differential declines in fertility and mortality rates, immigration, capacity of the economy to sustain a larger consumer group, improved nutrition and sanitation, control of infectious diseases, and improved treatment of all disease.

The scientific discoveries and inventions responsible for population growth and for increase in the number of older people are likewise basic to the development of our high energy society. The phenomenal expansion in the use of power and machines has meant a ten-fold increase in the per capita output of energy in the last 100 years.[1/] In turn, this has resulted in more than quadrupling per capita output of products. Today the new technology of automation and the conversion of nuclear energy for peacetime uses make our potential output almost unlimited. Already we have achieved a society of unprecedented affluence; tomorrow's promise is even greater. In consequence, the work week will continue to be shortened, more and more activities will be carried on outside the home, and retirement, already established as a social expectancy, will take place at even younger ages.

[1/] Tibbitts, C. 1960. Aging as a Modern Social Achievement. In C. Tibbitts and Wilma Donahue (eds.) Aging in Today's Society. pp. 3-11. New York: Prentice-Hall.

The final products of this changing economic system are, first, ever increasing amounts of free time at increasingly younger ages, and second, an increasing independence among the generations and concomitant reduction of the importance of older people who are no longer needed to offer security, to educate and to serve as models for youth, to add to the productivity of the society, and to carry forward historical and religious traditions.[2]

Creation of Many Problems

Other social changes relevant to the problem of accommodating society to the aging population are urbanization and industrialization of large areas of the country. The net result of these factors has been to concentrate, over a short time, in relatively small geographic areas, large numbers of elderly persons who, as a rule, have insufficient income to buy the health care and other services they need, who have families which cannot or will not maintain them, who live in accommodations unsuited to their changed physical and personal circumstances, and who have few sources of companionship or other psychological supports.

Professor Duncan[3] places the emergence of aging as a social problem at the point when these concentrations of older people began to create emotional, economic and maintenance problems for families and communities, to drain the limited charitable resources of religious and benevolent organizations, and to fill hospitals and other institutions.

All these social factors and pressures, combined with increased longevity, stimulated action to bring about modifications in the societal structure and to change the position of older people in this modified social system. Their activities, family and social relationships, housing requirements, sources of financial support, even the meaning of work itself are different from what they were at the turn of the century.

Demography of Aging

The 1960 United States census makes age trends more evident than did the 1950 census. It is obvious that man has realized his desire to extend the life expectancy of all, and that more and more persons are living out more years of the natural life span of the species. Thus we find that while in 1950 there were slightly more than 12 million persons age 65 and over, in 1960 the number had increased to 16-1/2 million, an increase in 10 years of 34.7 per cent as compared with 18.5 per cent for the total population in the same period.

Each year there is an average net increase of 426,000 persons in the over 65 age group. Today there already are over 17-1/2 million in this segment of the population. It is projected that by the year 2000 there will be 30 million and, should modern medicine find the cure for cancer, heart disease and arteriosclerosis, the number could be radically revised upward.

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[2] Rosow, I. 1961. Old Age - One Moral Dilemma of an Affluent Society. Washington, D.C. Washington Center for Metropolitan Studies. 18 pp.

[3] Duncan, K.S. 1961. Society's Attitudes Toward the Modern Problem of Aging. Paper presented at McMaster University Conference for Workers with the Aged. May 26, 1961.

More than Million in 85-over Group

Of even greater portent for planners than the increase in the total group aged 65 and over is the almost incredible change in the number of persons who are living to be 85 or more years old. Since 1920, their numbers have increased 920 per cent. Today there are over a million in this age group, constituting nearly six per cent of the aged population 65 and over. Obviously, social planners must recognize that providing environmental settings for people who will be living for 25 to 30 years beyond the age of 65 should take into account the fact that during such a span of years the needs of the individual may change as drastically as they do during any other life-period of similar duration. What types of provisions and how many of each will be needed, of course, depends on a number of factors other than mere numbers at various age levels. Among these is the ratio of older men to older women in the population and the marital status of each sex.

Today there are 1-1/2 million more women than men aged 65 and over; they approximate 54 per cent of the older age group. Most striking statistic of all is that women make up 61 per cent of the population aged 85 years and older.

A review of marital status in the aged shows that while seven of 10 men aged 65 and older are still married, only a little more than one of every three women in this age group is married.

An examination of the changes in household and family status during the last decade gives unmistakable evidence that more and more older people are living independently.4/ The 68.9 per cent of the 65 years and over group who lived in their own homes in 1950 had risen to 78.4 per cent by 1961. If an adjustment is made for the variation in rate of increase of the number of persons in the older age group, the relative rate of change during the decade amounted to an increase of 13.8 per cent for those living in their own households.

5-1 Against Doubling Up Households

It is often assumed that older people are living alone because their children no longer feel or acknowledge responsibility for their parents. The truth of the matter seems to be that neither older people themselves nor their adult children are in favor of doubling up households.

In a study by Morgan5/ made three years ago, the vote was against the practice by a margin of 5 to 1. The rising standard of living, the provision of special housing and community services for the elderly, and the increased capacity of nursing homes and other health facilities make it possible to satisfy the desire of both younger and older generations for independence.

Fortunately most older people enjoy a reasonable level of good health and a relatively small number are seriously ill and disabled. Documentation

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4/ U.S. Department of Health, Education, and Welfare, Special Staff on Aging. 1962. Household and Family Status of Persons 65 Years of Age and Over, 1950 and 1961. processed.

5/ Morgan, J.N. 1961. Patterns of Family Change in America. Ann Arbor, The University of Michigan Survey Research Center.

for these statements if found in the oft-quoted data of the National Health Survey.[6] These show that as many as one-fifth of the 65-74 year old and one-sixth of the 75 year olds and over report having no chronic illness or disability. An additional two-fifths of the 65-74, and one-fourth of the 75 and over report one or more chronic conditions but say that these cause no limitation of activity. This means that between six and seven million, or better than 1/3 of today's old people — other things being equal — can continue to follow the same patterns of living as at younger ages.

In contrast to this reasonably healthy group, the same survey shows that at least 3-1/2-million older persons are severely limited in mobility and almost one million of these are confined to their homes or are living in institutional settings. This group of ill old people requires a highly specialized environment with much consultation about services, and because of the critical nature of their needs, they tend to receive the first consideration.

Extent of Blindness Among Older People

During the past quarter century a great deal of the resources and energies of our agencies for the blind have been devoted to rehabilitation of the adult blind and education of blind children. It is not our contention that we have reached a point where efforts in these areas can be relaxed, for much remains to be done. It is essential, however, to reassess the needs of the clients we serve in light of new facts which have been uncovered during the last decade and to develop appropriate services.

Although we do not have an exact census of the blind in this country, prevalence studies conducted by Dr. Ralph G. Hurlin[7] give us a fairly accurate picture of the size and of certain characteristics of this segment of the population. It is now estimated that there are 385,000 blind persons in the United States. Most of our professional workers have been contending for the last two decades that more than 50 per cent of this group are 65 years of age and over. This contention is borne out in a study conducted by the California State Department of Public Health, 1954-55,[8] on a fairly large group of public assistance recipients over age 65. This was further substantiated by a study of the blindness register in the United Kingdom.[9] This study states that 66 per cent of all new registrants in the period surveyed were above age 70. While it is recognized that this study was conducted outside the United States, the population is similar enough to provide valid material with respect to the prevalence of blindness in the older age group.

The National Society for the Prevention of Blindness published a study in 1962[10] showing the increase of blindness in our population with increased age. These statistics amply indicate that the estimate of 50 per cent age 65 and over is, if anything, conservative. If we accept these facts, and we have very little alternative, then we must also admit that proportionately little has been done for the largest group of clients we purport to serve.

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[6] Confrey, E.A. and Goldstein, M.S. 1960. The Health Status of Aging People. In C. Tibbitts (ed.) Handbook of Social Gerontology, pp. 165-207. Chicago: The University of Chicago Press.

[7] Hurlin, R.G., Chairman, Committee on Operational Research, National Society for the Prevention of Blindness. 1960.

[8] Blindness Among the Aged by N.B. Belloc, Associate Statistician, Prevention of Blindness Project, Bureau of Chronic Diseases, California State Department of Public Health. Public Health Reports, Vol. 71, No. 12, Dec. 1956, 1221-1225.

[9] The Rehabilitation of the Blind and Partially Sighted, Campbell, D.R. Birmingham Trans. Ophthal. Soc. U.K. 1957, 77 (543-551) Tables I.

[10] Estimated Prevalence of Blindness in the United States and in Individual States, 1960, National Society for the Prevention of Blindness, Publication P-617.

A brief review of some of the information available to us is sufficient to indicate that the health status and financial condition of our older blind population is worse than that of the comparable sighted group.

Data is not available for the number of blind persons now residing in nursing homes. Although a tremendous amount of information is available from the Department of Health, Education and Welfare regarding blind persons receiving public assistance, information about medical payments which include nursing home care is not available in a form which would permit us to make valid conclusions. In states where separate data can be obtained, it is apparent that a large percentage of the financial support for medical payments is expended for nursing home care.

Dependent Upon Public Assistance

A fair percentage of blindness results from systemic causes which have other debilitating effects on the individual.11/ Lack of mobility among older blind persons and several other factors tend to increase the debilitating process. Therefore, it is safe to assume that chronic illness among older blind persons poses serious difficulties which must be dealt with if our attack on this problem is to be successful.

We have already alluded to the financial plight of the blind person. If approximately 25 per cent of the total group is receiving an Aid to the Blind grant, quite obviously this means that an even larger per cent of the blind above age 65 are dependent upon public assistance. Though accurate statistics are woefully lacking, it would seem reasonable to assume that our older blind person would have an average income less than his sighted peer.

The average married couple in the over age 65 group in the United States has an income of approximately $2530 per year.12/ This is $400 less than what is considered minimal for maintaining themselves independently. The median annual income for all older persons is $950.13/ It would take very little argument to convince anyone that government subsidy will be necessary if we are to discharge our obligations in providing proper housing and adequate health care for our older citizenry. The aged blind population is part of this citizenry and should be considered in any community planning to meet such needs.

Can't Compete for Good Housing

Another area in which professional workers for the blind must take major responsibility to insure proper consideration of blind persons is that of housing.

11/ National Society for the Prevention of Blindness, 1962.

12/ Stotz, Margaret S. 1960. The BLS Interim Budget for a Retired Couple. Monthly Labor Review, November, pp. 1141-1157.

13/ Gordon, Margaret S. 1960. Aging and Income Security. In C. Tibbitts (ed.) Handbook of Social Gerontology, pp. 208-253. Chicago: The University of Chicago Press.

Recognizing that most older people do not have sufficient income to compete on the open market for good housing and that, moreover, they need dwellings specially designed to meet the physical and social limitations associated with aging, Congress already has made several provisions and others are pending for the building of senior citizen housing. In consequence, there are many housing projects being developed which are intended primarily for occupancy by older persons. Half the public housing units contracted by local authorities in the last three years were earmarked for low income senior citizens.

Direct loans to non-profit organizations to build senior citizen housing for middle income families and FHA insurance of non-profit and profit construction for the elderly have resulted in a great proliferation of senior citizen apartments, retirement hotels, old age homes, and even entire retirement communities. Virtually none of these have given attention to the special architectural adaptations required by blind persons; yet it is generally accepted that proportional representation of all groups should be included in any project.

Actually very little will be needed in the way of any special equipment other than the normal safety devices which should be incorporated in any housing project designed for the occupancy of older persons. For example: (1) the inclusion of double hand rails; (2) special consideration for adequate lighting (many of the older blind persons we are discussing here have some residual vision which can be quite useful when lighting and other conditions make this possible) and (3) where cooking facilities are included with housing units, some consideration should be given to the installation of a few electric ranges. These have proven most satisfactory for blind users and provide the greatest margin of safety. These are only a few illustrative suggestions.

Most of the adaptations must be incorporated in the initial plans since they are concerned with location and basic layout. Some areas of concern to a blind tenant are: (1) placement of the housing project in a section where traffic will not constitute a hazard; (2) careful placement of steps so that they do not present unusual obstacles for a blind person; and (3) free and uncomplicated access to all functional and recreational areas. It is never necessary to eliminate stairs where the blind are concerned but it has been amply demonstrated by safety engineers that propitious location of steps can prevent accidents.

Housing Eyed for Elderly Disabled

During the planning stages it would seem most desirable to have a knowledgeable professional worker for the blind automatically included as a consultant or advisor to the local board responsible for the construction of special housing units for the aging. We must actively campaign for acceptance on these planning boards. We cannot sit idly by hoping that our talents will be recognized and sought.

It is extremely important at this time to present the viewpoint and outline the unique needs of the aging blind in our society. Pending in Congress is a special bill drawn to provide housing for the elderly disabled.

While we recognize that special construction involving radical changes is essential for certain disability groups, a minimum should be incorporated in housing projects not intended primarily for disabled persons. We believe that it is in the best interest of all concerned not to segregate disabled individuals but to integrate them in the total environment whenever this is possible. We cannot emphasize too strongly that this is entirely possible for the blind population and any attempts to do otherwise would be most unfortunate for the blind individual and society in general.

Need of Health Care Recognized

With respect to the second great need, adequate health care for our aged population, it is evident from the number of groups now focusing their attention on the problem that existing needs are recognized. Plans will be developed, either public or private, or perhaps a combination of both, that will assure the medical care that is now so pitifully lacking for most of our older population.

A study by Solon, et. al. in 1957[14/] showed that there were nearly 25,000 nursing homes containing approximately 450,000 beds. More recent reviews of the situation indicate that the number of nursing homes has been reduced by 2,000 but the number of nursing home beds has increased by approximately 150,000. The scope of service provided also has undergone a comparable increase. The best care for older persons is based on the principles of rehabilitation which helps them to recover and move back into the community rather than become permanent bed patients.

A blind patient in a nursing home or old age home today is a common occurrence. A great deal, however, needs to be done in order to assist administrators of hospitals, old age homes and nursing homes to understand the blind patient and his needs and to make certain that the rehabilitative care is available to him. Personnel not familiar with the problems caused by blindness may attribute all difficulties to the disability and consider the patient beyond help with respect to rehabilitation services for independent living.

Many Ways to Help Patients

Even though blind patients may constitute a small fraction of those coming to the special nursing home, old age home[15/] or hospital facility, the personnel should be given an orientation in caring for a blind patient. They should be alerted to call on the special services of the community agency for the blind to help in the solution of the special problems posed in such cases. Our agencies should be prepared to provide many kinds of restorative services which may include guiding the patient, self-administration of medications (insulin, etc.), limited independent cane travel instruction and other adjustment services as indicated.

[14/] Solon, J., Roberts, D.W., Krueger, D.E., and Baney, A.M. 1957. Nursing Homes and Their Patients and Their Care. Public Health Service Publication No. 503. Washington, D.C.

[15/] This is particularly significant for personnel operating an old age home because patients in these establishments frequently are taken in for the remainder of their lives and there is a high possibility of residents becoming blind with advanced age.

A small suggestion, but an important one in the rehabilitation of an older person, is to make certain that talking book machines and records are made available to all facilities caring for the older blind patient. Not all of them will make use of this equipment, but for those who have been accustomed to reading, such a service can help the patient immensely.

These suggestions may seem elementary to some but it is a fact that in many nursing homes, whether designed for ultimate rehabilitation or offering only custodial care, fees are increased significantly for the admission of a blind patient. While it is recognized that in certain instances the blind patient, who has other serious chronic disabilities, may need special attention, the amount required does not seem to bear any relationship to the higher price. An additional charge is standard in many facilities and ranges from 10 to 25 per cent of the total monthly rate. It is our contention that such additional charges are warranted in only a very few cases. An analysis of these cases will provide ample proof that other chronic disabilities were the major cause for additional service requirements. Consultation and/or special services from the local agency for the blind could effect a notable change in the attitudes of administrators responsible for current practices. It is our duty to acquaint the proper leadership with available resources and make certain that these resources are utilized fully.

Any discussion of health care for the aging blind should include reference to the increasing number of low vision aids clinics now being operated throughout the nation. At present, in most publicly operated programs, microscopic and telescopic lenses can be secured for a blind person free of charge only if a vocational objective can be established. Numerous studies have demonstrated that these lenses can be of great benefit to a blind person in the conduct of normal activities of daily living; e.g., reading mail, identifying bus signs, food labels, etc. In addition, the lenses can be used extensively for recreational purposes. A few illustrations of these are leisure reading, viewing television and motion pictures.

Although microscopic and telescopic lenses will be helpful to only a minority of the older blind population, the group is large enough to warrant routine examinations of any potential users of these special lenses. When in the opinion of an ophthalmologist special lenses can be beneficial, they should be provided routinely to those who cannot afford to pay for them.

Developing Recreational Opportunities

Another area of great concern for our senior citizen is recreation. This has particular significance for the older blind person. Most of us are so busy earning a livelihood and enjoying our leisure hours that we are unable or unwilling to plan feasible activities for retirement. Consequently, when we find it necessary to fill an entire day with meaningful activity which does not include the usual work routine, we are frustrated and make life difficult for those around us. If this is true for the general population, the problem is greatly magnified when loss of sight is superimposed.

We are not suggesting that government agencies should plan all recreational activities for our older citizen. Whenever this theory is seriously pursued, it encounters strenuous opposition and rightfully so. The acceptance of retirement is something that is comparatively new for most of our society, but it is a role we are learning to live with and even look forward to.

There always will be a substantial number of persons who never learn the art of useful enjoyment; and for these, adequate provisions are vital. Many of our special programs for the blind today already are involved in developing suitable recreational activities but much of this is not applicable to the older person. In the larger urban areas, centers are specifically designed to meet the social needs of the aged; in fact, there are now over 600 such centers and their number is increasing rapidly. There is legislation pending in Congress which could substantially increase this trend.

Guidance Training Required

Our task as professional workers for the blind is not to build special activity centers for the blind but to help the blind clients integrate in the ongoing community programs. This may not be a simple task for it involves the development of many new skills on the part of the blind person and the giving of insight to those in charge of program centers in order to dissipate their anxieties about blindness:

1. The blind person must be instructed in independent travel, whenever possible, so that he can get to and from the center by himself. For a large per cent this may be impossible and for these individuals it will be necessary to develop a willing and well trained group of volunteers who will be available for guiding when needed.

2. The majority of the aged blind lose their sight in their later years; consequently, many of the sedentary activities which they might ordinarily engage in such as checkers, cards, dominoes, etc. are not practical without a certain amount of training. Once the simple training has been provided, the blind person is able to enjoy and compete in most of the games that are popular in the "golden age" clubs and other centers.

3. For some people games hold little interest, they would much rather pursue a productive hobby; e.g., needle work for women, woodworking activities for men. Here again our professional workers can provide invaluable service giving the special instruction required and, in certain instances, interpreting the capabilities of the blind to the community. Those in charge of woodworking shops, metal classes and other group activities which require the use of power machinery may exclude blind persons unless their safety and competency is demonstrated and unless our agencies are willing to provide the initial special instruction.

Problem Greater in Rural Areas

Previously we alluded to the value of library services for the blind in fostering rehabilitation of the older blind client. Reading is perhaps the greatest single recreational activity available for the elderly blind. There is a great need for expansion of this service. Many new publications specifically designed for the older citizen have been produced in the last ten years. Much of this material would be of interest to the blind and could easily be made available through tape recordings. Since most of this material will not have universal application, it would be best to have it recorded by volunteer groups. This also would have the added advantage of making it possible to produce items of local interest.

The problem of providing recreational opportunities for the older blind person in rural areas is a more difficult proposition. State and local agencies for the blind are attacking this problem and have been experiencing a good deal of success. The role of the professional worker here becomes even more important in interpreting the blind person's abilities and limitations. In most instances, there are no organized facilities into which blind persons can be readily fitted. However, it is possible for the professional worker to assess the recreational outlets in the community and the interests of the blind person and, from these two essentials, construct the program which will be satisfying without requiring major changes for the client or readjustments for his neighbors.

The whole area of camping, walking tours and vacations should be a thoroughly explored and exploited topic with regard to the older blind citizen. These are activities which give promise to be especially enjoyed by older persons. Many communities sponsor camps and other trips throughout the year. Little purpose would be served by a detailed description of our suggestions in this field, but it is an area which must be given serious consideration in the future. It is hoped that no more camps and vacation facilities will be built exclusively for the use of the older blind because normal activities of camp facilities lend themselves more readily to mixed groups. It is our contention that the majority of our older blind citizens must be served through integration with already existing facilities or using the services of state and local agencies to obtain the maximum benefit for the blind participant.

Employment Available For All

Proper use of leisure time whether for productive or pleasurable purposes will not satisfy all persons who look to us for help. Many find it absolutely essential to engage in remunerative employment. For most, this will mean part-time work. For others, anything less than full-time employment will be unacceptable. Our programs should always be flexible enough to recognize and to fulfill the needs of capable blind workers of any age. If an individual applies for and is capable of full-time employment regardless of age, he should be given rehabilitation services commensurate with his aptitudes, interests and abilities.

There are literally hundreds of cases of blind persons age 65 and over who, after proper training, have been able to engage in full-time competitive employment for several years beyond the normal retirement age. It would be economically wasteful and certainly socially wrong to deny such individuals the right to training and assistance necessary to finding suitable employment. The majority may wish to engage only in part-time work activities. For some these activities will be little more than therapeutic in nature and may be provided through enrollment in hobby shops. Some will be capable of and will receive part-time employment in the numerous sheltered workshops now being established around the country. Production, of course, is not of great importance in a sheltered workshop operated primarily for therapeutic purposes, but it is still necessary to achieve a certain productive level. If all standards are removed, payment becomes outright charity and would be demeaning to the recipient.

Psychological Need for Work

Workshops are only one of many areas of part-time employment which would be open to the well-trained older blind worker. One factor which cannot be over-stressed is the need for realistic planning and intensive training. The blind person who is 65 years or older has two great obstacles to overcome with any potential employer; he must be able to prove that in spite of age and a severe disability he still can equal his sighted peers in production.

The American society is work-oriented and unless our set of values radically changes in the future there always will be a significant number of persons even in the above 65 age group who will have a strong psychological need for some kind of employment. The situation can be expected to become much more complex in the coming years.

Automation has already made substantial inroads on both blue and white collar jobs. This is particularly true of repetitive tasks which are the most feasible for blind manual workers in unskilled and semi-skilled occupations. With an irreversible trend toward greater automation, employment for the older blind worker will become increasingly scarce and the rehabilitation counselor working on this client's behalf will have to seek new opportunities in the burgeoning service occupations. His work will be cut out for him. He will need all the imagination and flexibility he can muster.

SUMMARY AND CONCLUSIONS

We have outlined a number of problems now confronting our aging blind population and have suggested a few simple methods whereby we, as professional workers for the blind, can attack these problems with a reasonable chance for success.

Several incontrovertible facts bear repeating:

1. The aging blind form the largest group of clients we purport to serve, yet proportionately they receive the least amount of service.

2. A rather large per cent of the total group are at the very bottom rung of the economic ladder.

3. Many of the aging blind have poor health status, suffering from additional chronic disabilities which may or may not be related to their blindness.

4. There is a great need for the development of recreational opportunities designed to integrate these persons within their communities and to lessen their isolation.

5. Rehabilitation efforts for independent living are pitifully small and vocational rehabilitation services for the older blind person are virtually non-existent.

In conclusion, we would like to reiterate the following few recommendations:

1. That we make an honest evaluation of the neglected plight of the nearly 200,000 older blind citizens. These individuals at present are existing at a bare subsistence level and any improvement must begin with substantial increases in financial support, with concomitant increases for adequate health care, so essential if rehabilitation services are to be effective. We would like to suggest that here, at the lowest point of our economic scale, would be an excellent place to begin the President's "war on poverty."

2. Examination for and prescription and provision of subnormal vision aids should be made a routine part of medical care. When, in the opinion of the ophthalmologist, they can be beneficial, they should be provided without cost to any individual who cannot afford them.

3. As professional workers representing the interests of the older blind, we must make every effort to: (a) make certain that local committees responsible for special housing for the aging include a consultant who can and will represent the unique needs of blind occupants though they will constitute only a small percentage of any group, and (b) introduce good rehabilitation practices in hospitals, nursing homes and old age homes and make certain that these practices are applied to blind patients universally.

4. The whole area of recreation needs to be emphasized by us. No program can be a success unless we learn how to help our clients integrate in their community and become socially acceptable. This will mean a critical review of the entire range of recreational resources now available, with an attempt to fit the blind person into those areas which interest him and in which he can compete.

5. Adjustment training including mobility instruction should be routinely made available to all newly blinded persons regardless of their age. Vocational rehabilitation services also should be available whenever this is feasible.

Must be Brought to Public Attention

Unless we are able to point to the foregoing recommendations as standard segments of our program in the next few years, we have failed those who need us most.

Size of program or depth of service, however, is of little consequence if we are unable or unwilling to take aggressive leadership in bringing these to the attention of the public at all levels. Deficiencies must be brought to the attention of those in a position to make changes. No matter how well prepared we may be, we cannot expect to contribute by sitting on the sidelines waiting for an invitation to participate. We dissipate a great deal of our energy in fruitless academic argument as to whether there is a need for special services for the blind. When this point is reached, it will be apparent to everyone concerned. At present, however, we are facing the greatest professional challenge of our time and, so far, we have barely scratched the surface.

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TOWARD A NEW DEFINITION OF BLINDNESS

*by Richard E. Hoover, M.D.**

The most commonly accepted definition of blindness in the U. S.** is as familiar to every reader of this article as is the history of its derivation unfamiliar. The antics and deliberation which led to this definition can be gleaned from the Proceedings of The House of Delegates of the American Medical Association, the 85th Annual Session held at Cleveland, Ohio, June 11-15, 1934. p. 60.

The author has felt for a considerable time that the definition which emerged on that occasion is inadequate, unrealistic, inequitable, prejudicial and restrictive even though it has wormed its way into many laws, customs and procedures.

Like all aging covenants, it must be respected till the world can negotiate a better formula. At the same time, going unchallenged, it is digging its way firmly into the lives and thoughts of the public. What is needed now is an honest analysis of the present definition, to determine how it may more equitably identify the visually disabled in need of various aids and services.

In the first place, only two of several visual characteristics are considered. These are distance visual acuity and central fields.

Implications in Definitions

Secondly, standardization is not required in the measurement and recording of these two visual characteristics. Uniformity of distances, light, contrast, charts and targets is disregarded. The general public assumes, of course, that all good doctors are in a constant league of nearly magic rapport which would grant such uniformity as a matter of course. This is not the case.

Thirdly, the definition implies that individual requirements for vocational and avocational pursuits are the same among the defined. (It was pointed out by Boswell, that Dr. Sam Johnson used his poor vision "like a good performer with a bad instrument." Such is the case with many others.)

Fourthly, this definition which provides no specifics for levels of disability tends to imply that all who are within it have the same visual impairments.

Finally, the definition ignores differences of visual impairments which might identify echelons of visual disability by which persons with similar problems could be identified and thereby profit from similar aids and services.

The sense of vision, when normal, is ability to perceive light, color and form in accordance with a certain standard.

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* In collaboration with C. Warren Bledsoe.

** A person shall be considered blind whose central visual acuity does not exceed 20/200 in the better eye with correcting lenses or whose visual acuity, if better than 20/200, has a limit to the field of vision to such a degree that its widest diameter subtends an angle of no greater than 20 degrees.

The sense of vision is absent when no light, no color, and nor form can be perceived and this is considered total visual disability.

Practical Meaning of Measurements

Everyone not included in the group with a normal sense of vision, or in the group with no sense of vision, may be called partially blind and may or may not be considered visually disabled.

How may light, form and color be measured and what is the practical meaning of these measurements?

The simplest test of the light sense is to determine the distribution of light on the retina produced by a black line on a white background.1/

The form sense employs the light sense and is the ability of the retina to discriminate two separate objects at the smallest visual angle (minimum separable) and to detect a break in contour (aligning power).2/

The color sense is measured by determining whether there is a loss of none, one, two or all of the color processes.

The practical meaning of these measurements is that visual acuity results from these retinal functions. Visual ability, however, is influenced by many other factors, many of which also can be measured.

Involvement of Other Factors

As indicated here, the two visual characteristics usually measured in determining "blindness" are distance visual acuity of each eye separately and central visual fields of each eye separately. Why is it not important to measure and record more of the visual characteristics which are often evaluated routinely in any ophthalmological examination and even others which are not routinely measured?

Should not the best corrected visual acuity for both distance and near be measured for each eye separately and, if vision is present in both eyes, also be measured together? Should not the accommodation power, peripheral visual fields, muscle balance, duction, versions, depth perception, fusion ability, adaptation, pupillary size and reaction, and color sense, all be accurately measured and recorded?

Visual acuity is also influenced by such factors as illumination, contrast, type form and distance. These can (and shouldn't they?) be standardized. The method of examination influences acuity, e.g., letters presented singly can be seen more readily than when presented in linear groups. Whether one eye is completely occluded or partially occluded or fogged can also change visual acuity measurements.

1/ Adler, Francis Heed, M.A. - Physiology of the Eye - Clinical Application - C.V. Mosby, Co., St. Louis, 1950.
2/ Ibid.

The peripheral and central visual field measurements also can be standardized as to distance, lighting, size and color of test objects. Tests for color blindness have been standardized.

There are some psychological and physical attributes contributing to visual ability, the measurements of which are not easily standardized. But is there any reason for failing to measure and record by standardized methods those characteristics which do adapt themselves to objectivity?

Playing the Ostrich Role

The definition implies that individuals falling within its limits have equal visual ability for all vocational and avocational endeavors. "Res ipse loquitur," but should we continue to foster these inequities in rehabilitation procedures and practices? For is it not possible to neglect or hamper the rehabilitative process of either the partially blind or the blind or both when misguided by such assumptions?

As the definition now stands there is no indication of any differences in the visual disability between those who have no useful light perception and those who have useful light perception or better. To continue to ignore these useful differences is playing the ostrich role and can be of no benefit to anyone.

There are psychological, social and even psychiatric arguments as advanced by the Rev. Thomas J. Carroll for categorizing visual disability in more exact terms but the author will not attempt any further development of these in the space of this article.3/

Visual disability may be relative at times, e.g., the commercial air pilot who is required to have 20/20 vision acuity in each eye with normal vision function in all other respects becomes relatively visually disabled if his visual acuity falls below the established requirements and he can no longer continue as a pilot for this reason. He may be considered even more visually disabled from the job standpoint if he is color blind.

Night blindness can be considered an extremely disabling condition to an individual required to do night watch on a ship.

What we are attempting to emphasize is the fact that there are various types and degrees of visual disability among individuals with impairment of normal visual function until the impairment reaches the point of no light perception in both eyes when the visual disability is total.

We also are trying to emphasize that visual disability in a practical way is not always the simple matter of best visual acuity being reduced to 20/200 or the central field being limited to 20 degrees or less, but involves the standard measurement and assessment of other aspects of visual function.

3/ Carroll, Rev. Thomas J. - Blindness - What It Is, What It Does, and How to Live With It, Little, Brown and Company, 1961.

We have indicated that there are instruments and methods which can be standardized and used to arrive at rather precise evaluation of an impairment of the sense of vision and its function. We have not made use of medical resources to decide what combinations or degree of impairment of these combinations led to disability in need of very specialized aids and services on an equitable and efficient basis.

It is not difficult to account for the pressure which has built up hard and fact rules concerning who is "blind." Despite the long expressed ideal of agencies that programs be individualized it requires a great deal of skill to do this in actual practice without incurring the ire of clients and their families.

The tendency to make one rule for all becomes firm in laws governing rights and privileges which in turn become status-quo. It is a first rule of civilization to cling to status-quo. Nevertheless, evidence of the desire for a less restrictive but more exact method of determining entitlement unremittingly intrudes in recent articles and the minutes of national committees. Two such committees require special identification because their membership represented the gamut of professions, agencies and services. They are the Workshop on "Definition of Blindness" sponsored by the National Institute of Neurological Diseases and Blindness[4/] and the Rehabilitation Codes, "Code for Impairment of Visual Function."[5/] Their purposes were entirely different but both contributed constructively to clarifying the need for more minute measurement and recording to justify the very real and oft-times serious implications of a label such as "blind," "partially blind" or "visually disabled."

Can Record Degree of Impairment

The NINDB Workshop resolved visual disability into two major divisions — one, when the sense of vision was entirely gone, and the other, when it was present but the impairments were of different natures and magnitudes. They recognized the easy identification in most instances of members of the first division, but implied a most difficult task of identifying degrees of disability among the members of the other division by recognizing a need for more investigation and information.

The Rehabilitation Codes Committee has made a concerted effort to designate minute divisions of all visual functions commonly measured, so that degree of impairment of one or all functions can be as precisely recorded as they are precisely measured. Medical data has the potential for correlative studies between visual tasks and isolated or combined impairments of visual characteristics.

The Guides to the Evaluation of Permanent Impairment — The Visual System - by the Committee on Medical Coding of Physical Impairment,

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[4/] National Institute of Neurological Diseases and Blindness. Workshop on Definition of Blindness, Minutes, 1961-2.

[5/] Riviere, Maya - Rehabilitation Codes, Code for Impairment of Visual Function. Association for the Aid of Crippled Children, 1963, (under a grant from the Vocational Rehabilitation Administration.)

appearing in the Journal of American Medical Association, Sept. 27, 1958, is often referred to by physicians for such determinations. In the introduction this identifies the functions of the eye which are included and allows the physician to evaluate the degree of impairment caused by other ocular disturbances not reflected in the visual functions measure.

Other organizations and authors have contributed wisely to the problem of the definition and of defining the population in both practical and academic ways. These are best assimilated in their original forms and are listed below.[6,7,8,9,10,11,12]

At the expense of being redundant let us again set forth the problem as it seems to exist at least to a few who have carefully appraised the conflicts and needs among countries, states and agencies providing services for the "blind."

Definitions in Various Countries

Mr. Paul Langan, of the American Foundation for Overseas Blind, was kind enough to sort out for the author some general definitions as used in various countries which further show the wide variation and muted attempts to get something "good" and we share these with you:

AUSTRALIA — Persons with less than 6/60 Snellen (with correction) are recommended to schools for the blind.

AUSTRIA — Maximum vision for admission to a school for the blind is 1/25, but children with better vision are admitted if an oculist recommends it.

BELGIUM — To be admitted as blind, the child must possess at most 1/20 of normal vision. The semi-sighted (weak-sighted) are admitted if the visual acuity does not exceed 3/10. The degrees of acuity are determined by an ophthalmologist.

CANADA — An applicant or other person shall be deemed to be blind only when the visual acuity, after correction through the use of proper refractive lenses, is not more than 6/60 Snellen, or the field of vision in each eye is reduced to less than 10 degrees.

DENMARK — No legal definition. Doctors and schools must report persons who are blind or so weak-sighted that special instruction or training is deemed necessary.

6/ Bledsoe, C.W. - "Blindness" and "The Blind." Western Michigan Univ., Kalamazoo, Michigan Univ. - Kalamazoo, Michigan, 1962.

7/ Graham, Milton A. Ph.D. - Toward a Functional Definition of Blindness - New Outlook for the Blind, Vol. 55, No. 8, October, 1959.

8/ National Institute of Neurological Diseases and Blindness. - Report of Workshop on Classification of Causes of Blindness Model Reporting Area for Blindness and Statistics, Nov. 29, Dec. 1, 1962.

9/ Kerby, C. Edith - A Law for Standardization of Statistics of the Blind. - Contributions of Statistics to the Prevention of Blindness, Inc.

10/ Hoover, Richard E., Md. - Visual Efficiency as a Criterion of Service Needs - Proceedings of the Thirty-Fifth Convention of the American Association of Workers for the Blind, 1962.

11/ Fonda, Gerald, Definition and Classification of Blindness and Residual Vision. Proceedings of the American Association of Workers for the Blind, 1960.

12/ Best, Harry - Blindness and the Blind in the United States, The Macmillan Co., New York, 1934.

EGYPT — A person who cannot see or count the fingers of one hand at the distance of one meter is considered blind from the medical viewpoint. Educationally blind are those either totally blind or those whose vision does not exceed 6/36 in both eyes. Both definitions are accepted for candidates in schools for the blind.

EIRE — As not having sufficient eyesight for ordinary school work.

ENGLAND — Blind pupils are not defined in terms of vision. The definition is, "pupils who have no sight, or whose sight is, or is likely to become so defective that they require education by methods not involving the use of sight."

FINLAND — A person who cannot find his way in an unknown place for lack of sight is defined as blind. There is no maximum vision for admission to a school for the blind.

FRANCE — By terms of the Act of July 3, 1945, all persons are blind whose vision is less than 1/20. Considered as blind are not only those with "central vision" of less than 1/20 but also those who at present have some vision above 1/20 but who are in danger of complete loss of sight.

W. GERMANY — A child is considered blind and must be educated in a school for the blind, when his visual acuity is 0-1/25 v. which permits in the cases of upper limits neither a normal school education as sighted children receive, nor an orientation based on vision, nor a later training in a profession for which eyesight is essential. A child is considered weak sighted and must be educated in a school or class for weak-sighted when his visual acuity is 1/25 - 1/4 v. assuming that this visual acuity is sufficient for learning to write and read in the manner of the sighted and to make possible later occupation and vocational training in the manner of the sighted.

GREECE — Any person with 1/25 visual acuity or whose vision is impaired to such an extent that he would not be capable of pursuing the type of work which he otherwise would have done, is considered blind. (Act of 1951.)

GUATEMALA — No official definition. Children are admitted to the school for the blind who have no light perception at all, up to those having 20/200 vision.

INDIA — No official definition, but a committee appointed by the Government recommends a temporary definition, "A person unable to count the fingers of a hand held out at a yard's distance should be considered as blind." Any child unable to read ordinary text books generally is considered eligible to enter a school for the blind.

HUNGARY — Those persons with sight up to 0.10 according to decimal system. The valuation for visually handicapped is from 0.10 to 0.25 (5/50 to 5/20.)

IRAN — In Iran, a person is blind when he is deprived of sight from both eyes.

ISRAEL — The definition accepted by UNESCO is in use here: 6/20 or counting of fingers at a distance of 2m. (Snellen)

JAPAN — Those whose visual acuity is less then 0.02 with glasses.

JORDAN — No legal definition, but every person is considered blind whose visual acuity in the better eye, after correction, is less than 3/60 and whose field of lateral vision is 20 degrees or less.

NETHERLANDS - Those who have no sight or whose visual acuity, even with the aid of eye-glasses, is so limited that they can't participate in the ordinary social life without special measures.

NEW ZEALAND - For purposes of Invalid Benefits, blindness is assessed at: (1) a maximum visual capacity of 1/60 in each eye (or count fingers at 1 meter) or contraction of visual fields to 5 degrees; or, (2) 6/60 in each eye with visual field contracted to 30 degrees.

NORWAY — Children and youth who are so visually handicapped that they can profit very little by the instruction in ordinary schools are admitted to schools for the blind.

SCOTLAND — Pupils who have no sense of sight or whose sense of sight is, or is likely to become, so defective as to be of no practical value for reading or writing.

SINGAPORE and MALAYA — Total absence of sight; visual acuity not exceeding 6/60 or 20/200 (Snellen) in the better eye, with correcting lenses; or no greater than 20 degrees.

It is also of interest to note that the World Assembly of the World Council for the Welfare of the Blind, 1954, urged all Governments to accept as a minimum definition for services to the blind, total absence of sight or visual acuity not exceeding 3/60 or 10/200 (Snellen) in the better eye with correcting lenses or serious limitations in the field of vision generally to not greater than 20 degrees.

Problem not Easily Solved

Simply stated, everyone would like to be able legally to identify administratively those individuals who are in need of special aids and services because of an impairment of the sense of vision to such an extent as to be considered visually disabled. This would include all those who are blind and a far greater number not so easily identified. These aids and services should be equitably parceled and effectively dispatched. Why teach mobility to a person with 20/200 visual acuity as the only impairment or why teach braille to a person who can efficiently read small print?

Simply as the problem may be stated, it is not as easily solved. However, if we are allowed the luxury of making suggestions, we would brave the sadness, scorn and chagrin of the status-quo as follows:

> Enough eye examinations, vouched for by competent physicians, are given each year in this country to yield all the information needed with respect to visual measurement, and to achieve correlations between these measurements and disability.
>
> Enough practical experience in agencies for the blind is available through the observations of instructors and therapists to form trustworthy practical evidence with respect to the performance of blind people in real life situations.
>
> The need is to relate these two performances in an objective way which will produce a logical and workable correlation. No intellectual earth-shaking idea need be involved or even required. What is needed is the administration of a phase of professional and technological housekeeping with sufficient efficiency to insure accuracy. This of course, means with unremitting, unrelenting devotion to things as they are, as well as old and new principles or scientific observations which keep human beings from deceiving themselves.

Many Forms of Avoiding Reality

It is recognized that in saying this, we imply one of the most difficult problems which society can set for itself, namely, commitment of a number of autonomous agencies and persons to the cooperation required to bring together, not hundreds, but thousands of correlations between action and visual tests. Yet there is hardly a more important undertaking to be accomplished BY work for the blind than every form of insurance that it be truly work FOR the blind.

All who are or have been "full time" workers in the field must be familiar with many forms of avoiding the hard reality of blindness.

None is more insidious than preoccupation with the partially blind, then with the partially seeing, even on occasion with people who have a little bit of trouble with their eyes, but a lot of social problems. Surely, there can be no objection to helping people with problems anywhere, anytime. But, it is rudimentary from an ethical standpoint to use the great resources turned out for "blindness" in behalf of the cause by which they are motivated.

"Equity," according to Aristotle, "is justice that goes beyond the written law." It is equitable to pardon human weaknesses, and to look, not to the law, but to the moral purpose; not to the part, but to the whole; not to what a man is now, but to what he has been, always or generally; to remember good rather than ill treatment, and benefits received rather than those conferred; to bear injury with patience; to be willing to appeal to the judgment of reason rather than to violence, to prefer arbitration to the law court, for the arbitrator keeps equity in view, whereas the diecast looks only to the law, and the reason why arbitrators were appointed was that equity might prevail."13/

13/ Aristotle in Rhetoric, tr. by John Henry Freeze. From the Greek Reader Edition. Duell, Sloane.

MOBILITY IN PERSPECTIVE

*by Martha J. Ball**

Peripatologist — The Greater Pittsburgh Guild for the Blind

A dialogue is being carried on in the field of work for blind persons which is gradually increasing in momentum and is encompassing all aspects of the work and all facets of blindness. In this decade of the sixties, Change and Communication have become the bywords, characterizing not only our work but the times in general. The vast technological advances of our age have triggered in us a more open, dynamic attitude toward the problems of blindness. We find ourselves stretching out to new horizons, rather than waiting for the horizon to shrink toward us. We find increased emphasis on integration and acceptance of minority groups, including blind persons, as part of the changing times.

With acceptance there is developing a trend toward greater expectation of training and achievement on the part of those in many minority groups. More blind persons are securing jobs in fields which demand that the worker, whether he is sighted or blind, be prepared to fulfill the requirements of the job.

ALWAYS RESISTANCE TO CHANGE

More blind and partially-sighted children are being enrolled in public and private schools on the basis of their ability to cope with the demands of this type of educational system. At the same time, residential schools for blind children are emerging from their isolation and participating in a dialogue with other areas in the field, rather than in a didactic monologue. More educators are beginning to realize that the "education" of the blind child is only one part of his total habilitation process.

Always with change, there is resistance to change, which if applied in a constructive way, can serve as a balancing factor, helping us to evaluate our purposes and gain perspective. For change is not good, nor is it bad, in and of itself. We must always ask ourselves why we are changing, what we are becoming because of the change, and what we are leaving behind.

Nowhere in the field of work for blind persons is change more evident and more loudly proclaimed and denounced than in the area of mobility. New programs of mobility training are being established; already-existing programs are being attacked. Everyone has an opinion about the value and the meaning of mobility in the life of the blind person and in the philosophical and operational structure of the agency and school.

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This is one of the vitally important areas where we must attempt to gain perspective. We must evaluate mobility with regard to its place and importance in the field of work for blind persons; its relationship to other parts of the total field; its meaning to the blind person as a client, and its meaning to us as professionals. And, as in attempting to gain perspective in any situation, we must always refer to our particular point in time, so that in our feverish desire to change and progress, or to remain steadfastly unchanged, we do not lose contact with our goals and forget the focal point of our existence as professionals, the needs of the blind person himself.

Realizing the limitations of categorization and the danger to individual differences and variations which it introduces, nevertheless, there seem to be four general approaches to the mobility question taken by workers in the field:

> 1) Those in the field who feel that mobility is the fundamental problem for a blind person, encompassing all others, and that if the person becomes mobile, whether by training or merely by obtaining and using a device, he has found the total answer to his adjustment to blindness.
>
> 2) Those who feel that the question of mobility arises from a hypothetical issue — that the mobility of blind persons is not a problem and certainly not a problem that needs to be solved on a professional basis, or indeed on any kind of structured basis at all. These are the people who feel that it would violate the dignity and "normality" of the blind child even to suggest that he be helped to develop his awareness of the environment through training, or that for an adult to use a cane, dog or human guide would be to destroy his true independence.
>
> 3) Those in the field who recognize that mobility, somehow and to some extent, presents a problem to the blind person, and who do one of two things:
>
> > (a) for reasons of prestige, power, fund-raising, etc., respond to the growing demand in the fields of education and rehabilitation for qualified, professionally-trained personnel, by hiring mobility specialists and then, because the agency adheres to basic philosophical concepts of the past, not allowing them to operate effectively according to the principles, procedures and skills in which the specialists have been trained.
> >
> > (b) permit and encourage other workers in the agency or school, such as home teachers, casework counselors, physical education instructors (sighted, partially-sighted, and blind), to familiarize the clients with mobility techniques without awareness of the physical or psychological problems involved or the knowledge to handle them.
> >
> > This group, then, is arbitrarily adopting the mechanics of mobility training while rejecting the essential principles which govern such training.

4) Those who believe, genuinely and without reservation, that mobility training is a basic need and right of every blind person if he is to enter fully, inasmuch as he is able, into the mainstream of life. These people recognize that mobility is part of the total habilitation or rehabilitation process of the blind individual and that he is entitled to the best possible training in order to help him realize his potential. These are the people who will not sacrifice standards of personnel and programming in order to meet the present surging demand for mobility capability that increasing vocational opportunities have created. They realize that this "emergency" situation, i.e., this lack of qualified instructors and this lack of mobility in blind persons, has existed for a century and that to try to meet the need by providing sub-standard instruction is not only to defeat efforts to progress in the field, but, most important, to cheat the blind client.

Mobility Requires Definition

Of course, there are variables, such as facilities, money and time operating in any program and in any setting which will influence the type of service that can be provided. But it is necessary and vital for the integrity of the field to determine what factors are situational and, therefore, flexible and adjustable, and what factors are primary and cannot be adapted. When we make such an examination, if it is honest, we will be able to discard the dangerous, the misleading and the regressive philosophies and practices and direct our efforts to a more effective recognition and solution of the problems presented to us.

To put mobility in perspective with regard to the total field of work for blind persons, we must first of all define what we mean by mobility, for many times we use the same terms with different understandings.

Webster's Dictionary defines "mobility" as "the quality or state of being mobile;" "mobile" means "capable of moving with relative ease;" and "to mobilize" is "to become organized and ready."

These several definitions are cited to show that mobility for a human being implies a capacity, a readiness and a facility to move. "Motion," being the "act of moving the body or any of its parts," is part of the total mobility process, but is not in and of itself mobility.

It is characteristic of man's nature to be mobile, to change his surroundings, to initiate purposeful action. Thus, mobility in a human being enables him to interact with his surroundings, to influence his environment as well as to be influenced by it. As a result of this interaction, man communicates; man learns; man grows, matures, and becomes what it is in his nature to become.

Mobility for a blind person must be considered according to the same general definitions. It is a matter of fact and it is the whole philosophical basis of our work that a blind person is no different in kind from a sighted person. Therefore, we must accept the premise that there is nothing in the nature of blindness per se which says that a blind person is unable to initiate his own movement or that he is unable to control his own actions within his environment.

Cannot be Limited to 'Foot Travel'

The difference between the blind and the sighted lies in the manner in which each communicates with and gains information about his surroundings and, thereby, orients himself. It may be said of both that the more meaningful and integrative the initial or basic orientation to the environment — in terms of training and variety and quality of experience — the better able the person will be to handle effectively more complex adjustments and activities.

Mobility for a blind person, as for a sighted person, cannot be considered to be only the physical act of moving and walking and should not be limited to the concept implied by the term "foot travel." The person must be aware of his surroundings and of his immediate position in relation to the factors in his surroundings. This is orientation, and it is a dynamic process, inherent in the total mobility function, for as the person moves, his surroundings are constantly changing and he has to keep up with them. Mobility, then, is not only being able to move but being able to establish and maintain contact with the significant realities of the environment as well.

The prime requisite for the development of a knowledge of reality in the human being is the proper functioning of his physical senses, for these are the channels which put him in direct contact with the external world and which are necessary even for him to communicate with himself.

This is not to say, however, that merely because the physical senses are functioning, all of them or only certain ones, the human being is going to 'know' reality. Each of the senses is designed to receive only certain specific stimuli from the total environment, and these impinge upon the person's awareness as discrete, isolated phenomena. For instance, the auditory nerve is activated only by sound waves; the proprioceptors in the muscles receive only the stimuli caused by movement of those muscles; the retina is only affected by light waves, etc.

But the human being, if he is to meet the environmental situation in its totality and act upon it effectively, must be able to compile and correlate the significant sensory data available into a meaningful interpretation of what is happening. The effectiveness of his subsequent action will be determined by how much he was aware of, how well he was able to correlate the information, and how accurately he was able to interpret its meaning for him.

Most Important of Physical Senses

The coordination of sensory data takes place to different degrees on various levels in the human being, because of the nature of his intellectual capacities, but it begins on the sensory level. The principle of sensory organization on this primary level has been called the "central sense," and it serves as a clearing house into which all sense data is channeled.1/

1/ Rev. Thomas J. Carroll. Blindness: What It Is, What It Does, and How To Live With It. Boston: Little, Brown, and Co., 1961, pp. 118-19.

For the sighted person, vision is the most important of the physical senses in terms of the type and amount of information given and the function performed. It has a longer range than any other sense. It is concrete and conveys limits, patterns and formations without being restricted to immediate time and place. It orients the person to his surroundings by informing him of the patterns of relationship that exist between himself and the objects that surround him. Vision extends the person outward toward the environment, and it brings the environment back to him. Thus, the sighted child, in his growth and development, builds up an interaction with his environment based primarily on what his vision conveys to him. He learns unconsciously that he can pinpoint with his sight his position, direction and distance in relation to other types of sensory stimuli, such as the sound of heavy footsteps he hears or the cool air currents he feels, and he acts upon this awareness by moving toward or away from the object he perceives as causing the sound or the breeze.

As the sighted child matures and grows to adulthood, he learns to depend on his vision to check on the information coming in through his other senses. Thus, his other senses take on a subordinate, although vitally important role to vision in his orientation to educational, social and vocational situations.

The blind person is a person who lacks or has lost the integrative sense of sight and because it is absent, he must organize his sensory data according to some other principle. It must be a principle of organization which will enable him to develop and maintain a realistic impression of the totality of his environment at any point in time or in any type of situation, so that he can act upon his sensory awareness with confidence. A congenitally blind person must organize his sensory perceptions within a spatial framework of auditory-tactual interaction.

An adventitiously-blinded person must integrate his remaining sensory channels within his previously-structured framework of visual images, which can be recalled and used for present orientation to the environment.

When his sensorium is so organized or reorganized and is functioning as an integral unit, the blind person has taken the major step in overcoming the fundamental effects of blindness. He has effectively mobilized his capacities and is able better to meet and handle the demands of daily life, whether they be in traveling, adjusting to a job, or whatever.

Must Develop Potential to Fullest

The concept of lack stressed above may rankle those of us in the field who do not like to think of the blind person — child or adult — in terms of what he lacks, but in terms of his normality and ability to learn and grow and be like everyone else.

Of course, the objective of any program of service for a blind person is to enable him to develop his potential to the fullest extent possible. But how do we know what is possible if, as indicated many times in our work with blind clients, we do not have an understanding of the primary effects of blindness? How then do we know what the blind person needs to develop in order to make a normal adjustment to life? And if we are not willing to admit that there are special needs created by blindness that must be dealt with in special ways, then why are there agencies for the blind or schools for blind children or vocational rehabilitation programs?

Unless we face the reality of blindness at its very core, without the emotional overtones of fear or pride, we will not be meeting the needs of the clients, and our philosophies will be dangerously sterile.

Perhaps in no other area has this lack of understanding of the fundamental effects of blindness been more apparent than in the area of mobility and sensory development and training. Organized programs for sensory training have been avoided and attacked in this work as if we really believed what the sighted layman says about blind persons: that they possess a "sixth sense" or that they automatically develop acuity and efficiency in the use of the remaining senses.

'Facial Vision' by Sighted, too

Object perception is still talked about with awe and is presented by some as the all-purpose solution to the mobility of blind persons. This occurs today, twenty years after Dallenbach, Supa, Worchel, et al., proved that 'object perception' — or what was known as 'facial vision' — is a function of auditory stimuli in the high frequency range only and that it is possessed by sighted persons as well as by those who are blind.2/

And again, how many steps are we removed from realizing the isolating effects of blindness on the sensorium when we require blind children to take 12 years of physical education or music lessons and then allow them to emerge into the sighted community unable to walk with a natural, confident posture and gait and not knowng what an intersection is!

It is precisely in the realm of sensory functioning that the apparent differences between the sighted and the blind become most obvious. When the blind person has been trained in the use of his remaining senses, has effectively organized or reorganized his sensorium, and has become competently mobile, his blindness becomes less obvious and his 'normality' more readily acceptable.

Sensory training is not only valuable because it enables the blind person to DO something, such as develop skill with a mobility device, of which sensory training is an essential component, but, most important, it enables the person to BE something. It is the means of activating the capacity of the blind individual to develop his sensory, imaginative and intellectual nature to its fullest. If we do not provide the opportunity for training in orientation and mobility, we are not recognizing the nature of blindness as a perceptual deficiency; we are not giving him everything he needs in order to overcome the lack or loss of sight; and, therefore, we cannot expect him to assume responsibility for himself as an independent person living with dignity in the sighted world.

2/ M. Supa, M. Cotzin, and K. M. Dallenbach. "'Facial Vision': The Perception of Obstacles by the Blind." American Journal of Psychology, Vol. 57, 1944, pp. 133-183.

We recognize the value of the remaining senses to the blind person in his daily activities. We provide training in braille, typing, manual arts and machine operations, and we know that this is accomplished through the tactual and auditory media. We are becoming more knowledgeable about the differential tasks performed by each one of the senses, including vision, and about the sensory capacities of blind individuals in relation to sighted. And yet we in the field of education and rehabilitation are only beginning to realize that the blind or blinded person should receive training so that he himself understands his sensory capacities and can make up for the absence of the integrating function sight performs.

Effective Studies Since 1940

Reliable studies from 1940 until the present day have done much to destroy, at least for the experimenters, the theories of automatic sensory compensation by generally concluding that the differences between the sighted and the blind in basic sensory acuity are not significant. The observed differences in actual performances are attributed to the difference in level and kind of attention, learning and practice.

Axelrod, in his study of sighted and blind children's performance in tactile and auditory tasks, found that a child who in his early environment has been permitted free, extensive movement and/or has had visual experience, does better on tasks involving form discrimination and spatial problem-solving than the child who has had a restricted visual or proprioceptive experience. He concluded that the sighted, or the once-sighted, perform at a higher level in many experiments of sensory acuity and performance because of their broader base of experience and their increased opportunities to gather information incidentally through vision and visualization.3/

It is necessary, then, for the blind person to be exposed to meaningful experiences which will provide the opportunity for him to learn or relearn how to use his sensory capacities. This should not be allowed to happen incidentally, and the learning situations should be realistic, leading to significant accomplishments.

Extensive practice is a necessary and valuable technique for developing confidence in the use of the remaining senses, but if it is isolated, and not accompanied by increasing awareness and challenges, it will lose its effectiveness and often becomes busywork.

Thus, the blind child who in physical education is exposed to jumping, running, skipping rope, playing ball, etc., and is not made aware, on his own level of understanding, of how to walk and how to control effectively his general body movements and muscle reactions, will, despite the extensive activity in which he has participated, probably develop irregular habits of posture and gait and erratic body reactions which to the sighted person seem odd. This will also be true for the blinded adult who is put to work on an interminable assembly line in shop "training" programs.

3/ Seymour Axelrod. "Effects of Early Blindness," Research Series #7. New York: American Foundation for the Blind, 1959.

Since mobility is a fundamental activity which is involved in every phase of a blind person's life, it opens up possibilities for exploration, learning and achievement not available in any other basic activity. Thus, the development of confidence in the use of the remaining senses is most effectively accomplished in conjunction with the mastery of mobility skills.

Many Factors Under Consideration

Present and projected scientific efforts are being directed toward an intensive study of the ways in which man receives information and communicates through his various sensory modalities, with the purpose of applying the knowledge gained to the design, development and utilization of guidance devices for the blind.[4/] Under consideration in these studies are such factors as:

- what information can the guidance device pick up which vision would normally provide?
- what sensory channel would most efficiently receive the stimuli from the external environment as relayed by the device?
- and, of utmost importance, what kind of device will give the information the blind person needs without interfering with the normal functioning of his remaining senses?

It should be a sine qua non in the development of these guidance devices and in their field testing, that the remaining senses of the blind person who is to use or test the device be trained to their maximum. For only when we know what the blind person is capable of perceiving when his senses are functioning naturally to their highest degree of efficiency — and this will vary with the individual — only then will we be able to make more meaningful and effective those devices we give him in order to extend and augment his sensory awareness.

Since the training and use of the remaining senses is so vital to the blind person if he is to function normally in mobility as well as in all areas of life, would it not be logical to ask next what importance a mobility device can have for the blind person who has trained his remaining senses to their highest degree of capacity and efficiency?

There are different viewpoints held in the field on the question of mobility devices. Should a blind person have to use a device at all? Which device is best? How old should a blind child be before he is given a mobility device? Most workers in the field view mobility in toto as the use of a travel tool, such as the white cane or the dog guide. Others feel that the truly independent traveler is one who is so competent in the use of the sensory cues in the environment that he does not have to use a device.

[4/] James W. Lisner, ed.. Proceedings of the Mobility Research Conference — Washington, D. C.: Sept. 25, 1961; Massachusetts Institute of Technology: Oct. 11-13, 1961. New York: American Foundation for the Blind, V, 1962, pp. 183-198.

These are misleading and dangerous concepts because they focus on the device rather than on the capacities and needs of the blind person and on his requirements for successful navigation in the environment.

No Device In Itself

No device or tool is good in itself. It is only good insofar as it helps the user accomplish something. And any device can be truly effective only if it is used in the manner in which it was intended.

Various types of mobility devices have been adopted by blind individuals in their attempts to become mobile. We will consider them but first we must find out if and why the blind person would have to use a mobility device at all.

We have defined mobility as the capacity, the readiness and the facility to move. Is it possible for the blind person, unaided, to be aware of and to control all the factors in his surroundings which he needs in order to travel safely, with ease and grace? The answer to this depends on the type of area in which the person is moving, the age and maturity of the individual, and the extent of independence within his life space that he wants and needs to achieve. For instance, the blind child, like the sighted child, is not mature enough, intellectually, emotionally or physically to accept the responsibility of complete freedom in mobility that the adult must have.

But for the blind person who is mature enough to want and need independence, who wants to determine for himself where to go and when to go, and who wants to do this in a manner which will make him appear normal to the sighted community, the answer is no. He cannot travel independently and safely unless he is able to use a SPECIAL mobility device or tool. (However, this is not to imply that because a person uses one of the mobility devices he is an independent or even a safe traveler.)

A special mobility device for a blind person is one which is designed to take over some part of the function that vision would perform for the sighted person during the navigation process. It must convey to him information about certain vital factors in the environment which his remaining senses, even though maximally trained, cannot give him when they are operating unaided, e.g., warning about obstacles in his path of travel which are not apparent to the senses of hearing or smell; information about the location of irregularities and discontinuities in the terrain, both upward and downward; and sufficient additional information about his surroundings so that he can proceed efficiently and safely.

Four Types of Special Devices

A special mobility device conveys such information by extending the remaining senses of the blind person further out into the environment and increasing his capability to receive and recognize meaningful stimuli. Thus, the long cane conveys information about the terrain, e.g., slopes, surface textures, drops, etc., by effectively transferring stimuli to the kinesthetic-tactual sense of the person. In learning to use a special device, the person must learn to coordinate the operation of the device with the functioning of the remaining senses, so that he will be prepared to receive and interpret the incoming environmental cues reliably and react to them on the basis of a total impression.

To date, there are four types of special mobility devices for blind persons:

1) the human guide
2) the dog guide
3) the long cane (or prescription cane)
4) electronic guidance devices, still in the developmental and testing stages.

While each of these devices is designed with the general purpose of providing information and protection to the blind traveler, the type and extent of information given is specific to the device. The long cane gives information about the physical features of the environment in which the blind person is moving. The dog guide will protect the traveler from overhanging objects, while the cane will not.

But when considering these devices from the standpoint of the blind persons who use them, there can be no ascending or descending order of importance or effectiveness.

The use of any one of these devices must always be considered in the context of the blind individual's own life situation, his needs, his capacities, and the meaning the device has for him. For instance, for the person who travels independently with the long cane, use of a human guide cannot be considered a dependent mode of travel. It may be the best form of mobility in a particular situation.

Each Has Own Function, Value

A dog guide user may have chosen that mode of travel because he is interested only in getting from one place to another and does not want to be concerned with the details of the areas through which he is passing.

The aging blind person may not be physically capable of using a dog guide or a long cane but may be able to move about effectively within a perhaps limited sphere through the proper use of the human guide.

We have seen that mobility for a blind person, then, must be viewed on a continuum of capacity, skill and attitude, but it has two basic components — an organized sensorium and a device or aid. One cannot substitute for the other, since each has its own function and value. And therefore, mobility training necessarily involves the functional development of the remaining senses and the learning of a special technique or device.

People In Past Vitally Concerned

In this day of formal mobility training programs, professional mobility specialists, and electronic devices, we often may get the feeling that at last we are beginning to recognize and do something about the mobility problems of blind persons. However, in studying the history of mobility and the development of mobility devices, one becomes aware of the progress that has been made over the years.

We are moving in step with the modern space age because people in the past were concerned with mobility and were in step with their age and sometimes far ahead.

It is only unfortunate that our operational level is never as far advanced as our knowledge level. Many of our present ideas and practices regarding the long cane and the use of the sighted guide were advocated almost a century ago, in 1872, by W. Hanks Levy, who wrote of mobility in Blindness and the Blind — A Treatise on the Science of Typhlology.[5/] He spoke of the value of mobility for the physical and psychological well-being of the blind person and stressed that the development or restoration of independence in mobility through various means, such as a stick, dog, even a gander, could give the person a confidence and self-reliance which no other ability had the power to give.

Levy considered, as we do, the exclusive use of sighted guides as the most dependent mode of locomotion for the blind person, but he recommended that, if they must be used, the blind person should employ his guides, rather than use a family member.

In our mobility training programs today, we consider the learning of a formal human guide technique to be part of the total process of gaining independence in mobility. The blind person must be able to use the guide as a tool for information and protection and, as is the case with any device, should be an active participant in his travel with a guide rather than "being taken" somewhere. When at times, in certain types of dangerous, complex or social situations, the blind person using a dog or cane decides to accept assistance from a sighted person, he himself is responsible for determining the procedure followed, this procedure being designed to give him maximum information from the movements and directions of his guide and to be acceptable in appearance.

Dog's Value Long Recognized

In addition to the human guide, blind people, for as long as man's activities have been recorded, have used some kind of stick or staff in order to aid them in moving about on their own. They procured shepherd's staffs, twigs, sticks and rods, long and short, of any type of material available, and used them for many different purposes: to locate a path, to guide around obstacles, to support the weight in case of falling, or to attract the attention of sighted people that a blind person was coming.

It would seem logical that the dog would also be used as an aid in travel, for since primitive times man has recognized the capacity of the dog to serve him in a variety of ways.

5/ W. Hanks Levy. "On the Blind Walking Alone, and Of Guides." Reprinted in Outlook for the Blind, Vol. 43 (April, 1949), pp. 106-110.

Early and medieval art depicts the blind man using the dog as companion and guide. It was usually a small dog, held by a long leash of rope or chain. In all paintings of a blind man walking with a dog, a staff, stick or cane was always carried in the free hand. This practice is still seen in Europe today.6/

Although formalized training of dogs as guides did not develop until World War I, individuals in the 18th and 19th centuries wrote of how they had successfully trained dogs as their own personal guides. In Vienna in 1819, Johann Wilhelm Klein referred to the training of dogs as guides for blind persons in his "Textbook for Teaching the Blind." He suggested that a short length of wood be used instead of the leash, thus introducing an idea which led to the development of the rigid U-shaped harness used today and through which guiding movements of the dog are better perceived. He also recommended that the dogs be trained by sighted instructors, especially in the beginning phases of the training.

It is interesting to note that many of the major educational, technical, sociological and psychological advances in the field of work for blind persons have come about as a result of crises or emergency situations, such as the World Wars and the siege of retrolental fibroplasia in infants. Such critical situations have created the necessity of working with large groups of people who must be helped immediately, and often in an effort to find solutions, new techniques and procedures were experimented with which proved effective and revolutionary, but which might not have been as readily adopted had they been tried out with the small "standard" caseload. The two World Wars provided the crucial setting for the development of standardized devices and techniques in mobility.

The Dog Guide

The dog guide movement had its beginnings in Germany during World War I. An organization in Oldenburg, Germany, under the direction of Dr. Geheimer Stalling, was training search dogs for the sanitary service of the German Army. By the end of 1915, there were 2500 trained search dogs working on the war fronts, and Dr. Stalling, realizing that the number of war-blinded was increasing rapidly, decided to try to train some of these dogs as guides for the blind. In 1916 the Oldenburg Society organized the first permanent school for the training of dog guides.

The Oldenburg Society began to train dogs for the civilian blind in 1922 and, as the demand for dogs increased, initiated the breeding of dogs and the training of instructors, and additional schools and branches were opened.

In 1923 a dog guide school was opened at Potsdam, and this is where Mrs. Dorothy Harrison Eustis, the American who founded the first dog guide school in America, first came in contact with the idea of educating dogs to be guides for blind persons. She had been working with the Swiss Army to train German Shepherd dogs for combat communications work during the war, and at her estate, "Fortunate Fields," in Vevey, Switzerland, had been studying and experimenting with the scientific breeding and training of various types of dogs.

6/ Nelson Coon. A Brief History of Dog Guides for the Blind. Morristown, N. J.: The Seeing Eye, Inc, 1959.

There were several objectives in her work in Switzerland: to produce a superior strain of dogs, through selective breeding, which would be equipped mentally and physically to work closely as a unit with man; to develop and improve methods of educating dogs; to find new ways for dogs to serve man.7/

Magazine Article Created Interest

All of these objectives seemed to fit the work of training dogs as guides for the blind, and when she returned to Switzerland from the dog guide school in Germany, Mrs. Eustis wrote in the Saturday Evening Post of her admiration for this work. Her article appeared in the United States in November, 1927, and was entitled "The Seeing Eye," taken from Proverbs. Upon reading the article, a young American who was blind, Morris Frank of Nashville, Tenn., wrote to her inquiring about the possibilities of his getting a dog for himself and, if he were successful, of establishing a similar dog guide school for the blind in America. In 1928, Morris Frank went to Switzerland to be trained in independent travel with the first Seeing Eye dog, Buddy I.

When he completed his training, he returned to America, tested the feasibility and the impact on the sighted and blind public of the use of a dog guide, and decided that it was time to begin this work in the United States.

The Seeing Eye, oldest and largest dog guide school in the United States, was incorporated in January, 1929, in Nashville, Tenn. Because of the limitations on training imposed by the warm climate, it was shortly thereafter moved to Morristown, N. J., which has been its permanent location ever since.

Following the organization of The Seeing Eye in America, Mrs. Eustis opened a school of the same name in Vevey, Switzerland, which had a threefold purpose: 1) to educate experimental dog guides for the various countries of Europe which had expressed an interest in including this type of mobility training in their programs for the blind; 2) to educate dog guide instructors for those countries which had decided, after trial, to adopt dog guide training for the blind; 3) to advise these countries in the establishment of schools and in the administration of the training.

Non-Profit Organization

From this initial effort, only the English school, Guide Dogs for the Blind Association, has continued to operate. In 1933, The Seeing Eye in Switzerland was closed, and all operations since then have been concentrated in Morristown, N. J.

The Seeing Eye, Inc., is a national (serving the United States, Canada, and Puerto Rico), private, non-profit organization which has established and steadfastly maintained high standards in its policies and practices of dog guide training. It is recognized as the international authority on dog guide training for the blind and functions as an advisor and technical consultant to help other countries establish similar schools. In 1962-63 The Seeing Eye provided an intensive program in organizational and training methods to the training

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7/ Dickson Hartwell. Dogs Against Darkness. New York: Dodd Mead and Co., 1960, p. 24.

director of the newly-formed dog guide school in Madrid, the first such school in Spain.

Because The Seeing Eye is the standard-bearer in the field of dog guide training for blind persons, and because other agencies, founded later, have used The Seeing Eye as a measuring stick, either to adopt or reject its standards, The Seeing Eye will be cited in this discussion of the use of the dog as a mobility device for blind persons.

'Sharing Relationship'

The properly trained dog guide has proved to be a highly successful mobility device for some blind persons because it enables the person to move with confidence at a brisk pace and facilitates straight-line walking. Its use demands erect posture and rhythmic movement, and thus the blind person can make a good appearance when traveling with a dog guide. Because the dog has sight, the blind person can avoid obstacles rather than make physical contact with them.

The use of a dog guide can also be therapeutic in the sense that the blind individual must express himself to the dog with warmth and understanding and develop a sharing relationship with it.

The Seeing Eye uses several breeds of dogs in its training program. The greatest percentage are German Shepherds, but Labrador Retrievers, Boxers, Norweigian Elkhounds and a few other recognized breeds also are used. Seeing Eye breeds many of its German Shepherds on its own breeding farm and continually is experimenting to develop better characteristics in these animals.

The dog guide must be big enough to pull the blind person away from danger, and it must have a coat that is easy to keep clean. The dog must have keen senses, quick reflexes, a stable, responsive temperament and intelligence. It must be willing and "teachable" because it is necessary to develop in the dog a sense of responsibility and discipline. This is only possible through strict, consistent training procedures.

Train Together for Month

The dog enters training for guide work when it is 14 months old. It is trained by the instructor for three months and is then placed with the blind person. Eighty percent of the dogs are females.

The blind person and the dog are trained together for a period of one month. In this time the master learns to walk with the dog on his left side, holding a rigid U-shaped leather harness and a leather leash. He must coordinate his movements with those of the dog and must learn to interpret and act upon the kinesthetic information he receives from the harness. He has to learn how to communicate with the dog and must be consistent in his verbal rewards and corrections for both desired and undesired behavior.

Since the dog guide is a working dog, and will remain completely effective only if it is kept functioning, the person who is accepted for a Seeing Eye dog must have some goal in mind for obtaining a dog guide; he must want to be independently mobile because he has an educational or occupational purpose in mind. (According to a recent survey, 90% of the Seeing Eye graduates have jobs or are usefully occupied.) The Seeing Eye also requires that the blind person affirm his independence and self-respect in obtaining mobility training with a dog guide by discharging on his own the nominal cost of $150 for his first dog, and $50 for each subsequent dog.

Standard requirements for obtaining a Seeing Eye dog are that the person:

a) be in good health and possess average intelligence and temperamental balance

b) be between the ages of 16 and 55, although the top age is flexible, depending on the capacity of the individual

c) have less than travel vision.

A person with a hearing loss may be accepted if he is able to discriminate traffic sounds.

Considering More Formalized Training

Because of the present dog guide training procedures, the blind person, in order to derive the greatest benefit from his training with a dog guide, should possess good balance and muscular coordination and should be able to maintain his orientation. But there are many blind persons, who, before entering training for a mobility device, have had no opportunity to develop effectively their sensory awareness.

Since the training of the remaining senses is most effectively accomplished in conjunction with meaningful activity, such as learning to travel, it is encouraging that The Seeing Eye is giving consideration to a more formalized sensory training and physical conditioning program for those students obtaining their first dogs.

Not only did The Seeing Eye successfully establish the first formal mobility training program in the United States, but it was also years ahead of the rest of the field in recognizing that the mobility instructor must be specially trained in his work.

In order to teach both dogs and blind persons and bring them together in a healthy, working relationship, the dog guide instructor must possess certain positive characteristics, in addition to physical fitness:

1) He must be able to establish a working relationship with his students and, thus, should possess patience, tact and adaptability.

2) He must like to work with dogs.

3) While Seeing Eye does not require a college education, it does look for interest on the part of the instructor in subjects related

to the work, such as psychology, animal husbandry, physical education and education theories. The dog guide instructor at Seeing Eye must serve an apprenticeship of at least three years, and Seeing Eye maintains complete responsibility for the training of all its instructors.

The Seeing Eye has put its rich endowments to work by sponsoring several research studies on mobility which have added to our knowledge of factors influencing the independent mobility of blind persons. In late 1963, it gave a grant in combination with federal funds to the Stanford Research Institute in California for the continued development of an experimental guidance device.

Some Play Upon Emotions

While the history of the dog guide movement in the United States is essentially the story of The Seeing Eye, there are other dog guide training centers in the U. S. Two which are patterned to some extent after The Seeing Eye are Leader Dogs for the Blind in Rochester, Mich., founded in 1939, and Guide Dogs for the Blind, Inc., in San Rafael, Calif., founded in 1942.

Some of the other dog guide agencies founded later deviate sharply and dangerously from professionally defined functions and responsibilities. California had to pass legislation in an attempt to standardize dog guide instructor requirements in that state, but this is only one of many abuses to be found in a service field that possesses so remarkable an appeal to the public. Some dog guide schools (as well as other types of agencies for the blind) deliberately play upon the emotions of the public in presenting their activities for fund-raising purposes by presenting images of darkness, poverty and helplessness which reinforce the stereotyped ideas that the public holds about blindness.

One dog guide agency arbitrarily has enlarged its scope of operation to offer mobility training with the cane, in addition to the dog, apparently without realization of or concern for the danger of short-term crash training programs. Much harm can be done to blind persons from such flagrant violation of educational principles. Even the professionally-trained mobility instructor will have failures, but how much greater the chance of failure and damage to the blind individual's self-confidence and desire for independent travel when the instructor does not understand the techniques he is trying to apply and does not realize the importance of a successful pattern of experiences in developing mobility skill and independence.

Opposed to Dogs for Children

Since 1929 more than 5000 blind persons have received training with dog guides from the three oldest and largest dog guide schools in the country. Approximately 5% of these have been between the ages of 16 and 20, while even less have been 15 and 14 years of age. However, there is a movement afoot at the present time to train dogs as companions and guides to blind children.

The leading dog guide schools, as well as other recognized leaders in the field of work for blind persons, feel that to give a blind child the responsibility of a dog guide, which is not a pet but a working tool for independent mobility, would be interfering with the child's growth process and would threaten the public's acceptance of blind adults who use the dog guide as an effective mode of independent, responsible travel. Thus, they have gone on record as being categorically against the use of dog guides by blind children.[8/]

According to a recent study of travel adjustment in blind persons, supported by The Seeing Eye and conducted by the New York School of Social Work, less than 1% of the total blind population in the United States uses a dog guide, and only an additional 1% could use a dog guide as an effective mode of travel.[9/] There are several reasons for this small percentage: most of the blind population are older than the upper age level set for obtaining dog guides; some are too young; some have additional handicaps; and a great many have too much residual vision to be able to use a dog guide properly.

This leaves 98% of the blind population who either do not need a device, are not capable of using or ready to use a device, or must use some other kind of mobility device.

Many Factors Involved

Those who do not need a mobility device may be those partially-sighted persons who, although they have severe limitations of vision, nevertheless are able to obtain some of the necessary visual cues in their environment that permit them to travel without a mobility aid. However, studies show that even though approximately 80% of the blind population possesses some residual vision, a substantial number do not travel or are not independently mobile. Thus, factors in addition to the mere objective diagnosis of amount of vision must be taken into consideration when evaluating the mobility training needs of the partially-sighted person:

What type of residual vision does the person have? Tunnel, peripheral, upper quadrant: And how much?

What was the age at onset of loss of vision and what type of visual impairment was it?

What is the prognosis for the remaining vision?

Under what environmental conditions — such as bright sunlight, an overcast day, similar or contrasting colors and shade patterns, and fine or gross movements of objects — can the remaining vision be useful and with what modifications of posture, head and eye movements?

How efficiently does the person use his residual vision and how effective is he in interpreting available visual cues?

Would an optical aid be feasible?

Often we have seen a person whose amount of vision is objectively so limited that he is placed within a legal definition of blindness, and yet he uses

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[8/] "Dog Guides and Blind Children — A Joint Statement." New Outlook for the Blind, Vol. 57 (June, 1963), pp. 228-29.

[9/] Samuel Finestone, et al.. The Demand for Dog Guides and The Travel Adjustment of Blind Persons. New York: Research Center, New York School of Social Work, 1960.

his vision to gain a great deal of information about his surroundings. On the other hand, some people with the same type and amount of vision cannot function at all in a visual way. Quite often individuals who lose their sight gradually are able to make a subtle transition from a visual orientation to the environment to orientation through the remaining senses. However, since the development of confidence in the use of the remaining senses is a primary objective in any orientation and mobility program, and since the residual vision is one of the remaining senses in the person visually impaired, a thorough training program should be considered a necessity for the partially-sighted individual.

Some Unable to Use Device

Those blind persons who do not have the capacity to use a special mobility device may be the aging and those with other handicaps, such as cerebral palsy, paraplegia or permanent disturbance in equilibrium.

With at least 50% of the blind population and 70% of those with severe visual impairment over 65 years of age, workers in the field of mobility must begin to establish some objectives of service to the aged. The aging process itself brings on many serious problems other than blindness: loss of career, companionship and motivation; increasing loss in the whole sensory area; loss of mobility due to the deterioration of muscle tone, physical stamina and skeletal strength. We need to know more about the mobility capability of the aging blind, and the effectiveness of sensory training in restoring the more generalized loss of reality contact, so that the life of the aged person who is blind can become more meaningful and satisfying.

On the opposite end of the continuum of mobility training from the aged is the blind child, who must develop a "readiness" physically and psychologically to use a special mobility device. He must gain certain competencies in mobility on each of the various levels of his growth — from birth through adolescence to adulthood.

Must Be Helped to Feel Secure

Orientation and mobility for the blind child involves, as it does for the sighted child, the establishment of a meaningful relationship with his surroundings. It means awareness of and effective interaction with the physical, the psychological and the social factors in the environment.

The blind child must be given every opportunity to develop physical contact with reality and must be helped to feel secure and comfortable in his surroundings. He cannot do this if left to his own resources. He cannot develop "naturally" toward the full realization of his potential unless he is stimulated and taught to respond to the stimuli in ways which will be successful and eventually self-motivating.

When we help the blind child to exercise a "creative command of the environment," we are recognizing his desire and innate drive for independence and interaction, and we are laying the groundwork for the development of the more complex orientation and mobility skills which he will need when he gets older.

Educators at the Bear Mountain Conference on Itinerant Teaching, in discussing the child's need for a "creative command of the environment," emphasized that the learning of orientation and mobility skills must be geared to the level of growth in the child, i.e., pre-school, pre-adolescence and adolescence.10/

It is in the pre-school years — from birth to five or six years — that the child builds the necessary base of confidence and security which enables him to move to meet his environment and begin to control it. In these years, we can capitalize on the child's natural curiosity, eagerness and sense of discovery by introducing him to objects, people and experiences and by allowing him to explore, test and experiment with the forces in his environment. He must be encouraged to develop open, strong and spontaneous muscular reactions so that he does not become restricted in his body movements due to the absence of visual space experience.

Serious Lag in Training

As professionals become more aware of the needs of the blind child, an increasing array of services is being offered for the pre-school blind child: visiting counselors, day and residential nurseries and nursery schools, summer institutes for parents and their children, and in some cases, placement in regular day nursery schools.

The most serious lag in the orientation-mobility training of the blind child comes during his elementary and pre-adolescent school years. When he reaches this age, he is put in a kind of "no-man's land," somewhere between the development of his basic orientation to the world during his pre-school years and the learning of a mobility tool for broader independence during adolescence. Schools for blind children do not offer formal orientation and mobility training until the child reaches the secondary level, if it is offered at all. Too many resource and itinerant teachers in public school programs have been of the general opinion that because the child is able to "move" from class to class, he is mobile and well-oriented.

These attitudes indicate a narrow concept of the place of orientation and mobility in the life of the blind child. We cannot suppose that the child's sensory growth and integration or his awareness of all influential factors in his environment is complete by the time he matures enough to enter an academic setting. The orientation of the blind child requires extensive physical and psychological adjustment and must be part of his total growth process, as is his literary education. It does not begin when the mobility specialist first meets the student for formal mobility lessons with a long cane but must be, throughout childhood, a continuous process of familiarization, exploration and increasing awareness of the impact of the environment on his own movements and reactions.

Workshops Held for Teachers

The solution to this lack of continuity in the blind child's orientation process lies in the incorporation of a course in orientation and mobility

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10/ "Itinerant Teaching Service for Blind Children," Proceedings of a National Work Session, Bear Mountain, New York: American Foundation for the Blind, 1956.

philosophy and techniques into the regular university curriculum for teachers in special education, so that the teacher of blind children will know not only that the blind child can be mobile but how and why.

In the meantime, attempts have been made to inform present teachers of partially-sighted and blind children about validated orientation and mobility techniques desirable for blind children to develop and use by means of workshops that have been held at several residential schools and at special education departments of universities in various parts of the country.

These orientation and mobility workshops were initiated by the American Foundation for the Blind, and were conducted by experienced mobility personnel from the Blind Section of the Hines Veterans Administration Hospital and The Seeing Eye. The Hines personnel, under the leadership of Russell C. Williams, had been the key figures in developing, refining and validating the pre-cane skills and long-cane techniques as well as a program of sensory training, which is vital for orientation to the environment and the effective use of the cane. The first workshop was held at Denver, Colo., in 1958 and since then there have been others, such as at San Francisco State College and the University of Minnesota, which have been held annually since 1959 and 1961, respectively. As more graduate peripatologists and orientation and mobility specialists enter the field, these workshops should become more prevalent so that teachers and parents of partially-sighted and blind children will be able to reinforce the use of effective techniques in their daily contacts with the children.

If his previous training and development in orientation skills has been favorable, the blind child, when he reaches adolescence, will have progressed to the point where he is ready to accept and use a mobility device. This "readiness" for a device and for a structured technique in using the device implies that the adolescent has reached a level of physical and psychological maturity which enables him to recognize the value of the tool and to assume responsibility for his own conduct and safety as he travels.

Cane Answer for Majority

No child or adolescent should be given a mobility device until he is mature enough to understand what it is to be used for, and this usually means until he has an objective need for it, such as to go off-campus for social events or to enroll in a public school. With proper counseling, the blind adolescent should participate in the final selection of his mode of travel.

For the majority of blind persons who need to use a mobility device to travel safely and independently and who cannot or do not want to use a dog guide, the cane must be the present answer to their mobility problem. Because of its simplicity, the cane is the most adaptable of the mobility devices available to blind persons and, therefore, it can be used by most people with some degree of success.

While blind persons have traditionally used some kind of cane to aid them in moving about, it has been only in the present century, and indeed only within the last two decades, that canes have been developed which are specifically designed to meet the independent mobility requirements of the blind person.

In the period between the two World Wars, the "white cane" was the most widely-known and used cane for blind persons. This cane, patterned after the standard orthopedic cane, is made of wood, is between 36-40 inches long and approximately one inch in diameter, and is painted white with a red tip. It became known in this country in 1930 when the Lions Club of Peoria, Ill., succeeded in obtaining passage of the first White Cane Law, giving blind pedestrians the right-of-way in crossing streets. In 1931 the Lions Clubs adopted the white cane movement as their national program and have issued thousands of canes to blind persons free of charge.

White Canes Now Obsolete

Thus, with a special cane to provide some means of protection and identification, many blind persons who had not previously traveled were encouraged to move out more freely into the community. In this respect, the white cane movement was a milestone in mobility for blind persons.

However, with the advent of special devices which more adequately meet the mobility needs of blind persons and with the increase in mobility training programs, the short white cane has become obsolete. The white wooden cane is too short, heavy and cumbersome to be handled in any graceful way by the blind person in his attempt to gather information and protect himself as he walks. It was actually not designed for a blind person at all but for the person who needs support for his weight.

It is the function of the special cane to act as a detector, enabling the blind person to gather vital information about his surroundings and to protect himself in the presence of obstacles. In this respect it is an extension of his remaining senses and gives him kinesthetic, tactile, vibratory and auditory cues which he can use to keep himself oriented and to travel safely and gracefully.

There are certain construction requirements which must be satisfied in order for the special cane to be used with maximum efficiency. It must be long enough to provide adequate reaction time so that the user can stop or change direction when he receives the appropriate cues. It must be made of a material which will readily and reliably conduct its vibrations to the tactile-kinesthetic sense. It must be durable in order to provide consistent relay of sensory information. And yet the special cane should be light-weight and well-balanced, so that it can be used effectively for extended periods of time without fatigue.

Using Hoover Technique

In order for the blind person to get the maximum amount of information and protection in using the "long" cane, he must learn to use it according to a special technique, commonly known as the Hoover, or touch, technique.

The Hoover technique consists of the rhythmic movement of the cane from a focal point in front of the vertical midline of the body. The cane is moved in alternate time with the footsteps, so that when the right foot is set down, the tip of the cane is touching on the ground ahead at a point one inch outside the left shoulder, and as the cane is pivoted to the right side, the left foot is coming forward. Thus, the blind person constantly is stepping into an arc of scanned area, this known area changing every time he takes a step.

The tip of the cane should be of such material (e.g., a hard wood or nylon) as will enable the person to be sensitive to the texture of the terrain as he touches it, and still give out meaningful, but not extraneous, sound pulses. The nylon tip seems to be most effective, since it is not affected by changes in weather, does not catch unnecessarily, and does not wear down as quickly as the wooden tip.

Although many people have adapted the Hoover technique to all types and sizes of canes, the "standard" long cane is one which is measured according to the individual's height and stride and consists of a one-piece aluminum shaft, one-half inch in diameter, with a crook at the top which may be more or less curved. Since this cane is measured according to the height of the individual, the correct length for one may be too short for another, so that a better term for the "long" cane may be "cane of unusual length," or prescription cane.

A body of knowledge and techniques concerning mobility with the long cane (and self-protective techniques for use in familiar areas without the cane) has been compiled since World War II. This has proved to be the most suitable type of mobility training for educational and rehabilitation programs, both for the congenitally and adventitiously blind. There are several reasons for this. First, dog guide training requires special facilities not available or feasible for the training settings of agencies or schools. Second, mobility training with the long cane is more adaptable to the wide age ranges of the clients in educational and rehabilitation programs. Third, in learning to travel with the long cane, the person is able to become mobile to some extent immediately; he is learning to establish contact with his environment; and he must necessarily train and use his remaining senses to their maximum.

Many Feel Cane too Long

The use of the prescribed cane with the Hoover technique enables the person to walk with his natural gait and erect posture, so that he makes a good appearance and reduces his conspicuousness as a blind person. Nevertheless, the long cane and the movement characteristic of the Hoover technique do identify the person as blind, for the special use of the cane is easily recognized by the sighted public. However, in observing the proper use of the long cane and the natural appearance it enables the person to maintain, the public is more inclined to identify the blind person as one who is capable, self-reliant, and willing to interact with sighted society.

Many workers in the field, especially those who are blind, feel that the prescribed cane for use with the Hoover technique is unnecessarily long and too inconvenient to use. To the person not trained in its use and/or not feeling comfortable with it, the long cane will seem to be too long. We would all appreciate an adequate collapsible cane which would combine the sturdy characteristics of the "standard" long cane with the convenience of putting it in the pocket or purse when it is not in use. But until such a cane is developed, we cannot sacrifice reliable protection and information for convenience. Usually we have found that once the person accepts his realistic need for the cane and learns techniques for using it, he encounters very little difficulty in trying to find a place for it in various types of situations.

Began Rehabilitation in World War I

The long cane and the Hoover technique had its beginnings during World War II with the development of the rehabilitation program for the war-blinded. The Army program for blinded veterans should be studied carefully, for it provides a model of courage, insight, common sense and initiative in dealing with the physical problems of blindness.

Modern and enlightened rehabilitation training for the newly-blinded dates from World War II, but the stage for such work was set by events in World War I. Organized efforts for the rehabilitation of the war-blinded began during World War I. France, Belgium, Germany and Italy had established various types of training and "re-education" programs for the war-blinded. In England, St. Dunstan's was founded as a readjustment and vocational training center and offered life-long aftercare to Britain's blinded servicemen and women.

The rehabilitation program for blinded American soldiers during World War I was conducted at The Evergreen School (General Hospital #7) near Baltimore, Md. Evergreen was opened in July, 1918, under the War Department, and the staff and consultants for its re-educational program were recruited from institutions for the blind throughout the country.

The blinded veterans at Evergreen, in addition to receiving medical care, were given courses of instruction in the communications skills, but the main emphasis during training was placed on vocational guidance and training.

The Evergreen program was largely ineffectual in its training procedures. The War Department recognized this almost immediately and ordered that those blinded soldiers who had completed their medical treatment should be discharged from the military service. Evergreen was subsequently operated by the Red Cross and by the Veterans Administration until it closed in June, 1925.11/

It has been roughly estimated that approximately 500 blinded veterans received special training after World War I. Aside from those who were at Evergreen, some were trained at other institutions for the blind, and some received no training at all. Many of the blinded veterans did nothing after they left the service.

When blinded casualties began to return to the United States during World War II, the Veterans Administration and the Office of Vocational Rehabilitation Services for the Blind were determined that the unsuccessful attempts at rehabilitation during World War I would not be repeated in this war. Thus, immediate action was taken to investigate the possible courses that could be taken to implement a thorough rehabilitation training program for the blinded casualties. This time there was more definitive planning of the program, and more realistic goals were set for the war-blinded.

11/ James N. Greear. Ophthalmology and Otolaryngology — Surgery in World War II. Washington, D. C.: Office of the Surgeon-General, Department of the Army, 1957, pp. 148-51.

In May, 1943, two Army hospitals were designated as special treatment centers for the blinded soldiers: Valley Forge General Hospital in Phoenixville, Pa., for the east coast, and Letterman General Hospital in San Francisco, for the west coast. Dibble General Hospital replaced Letterman in August, 1944. The Navy centralized its blind rehabilitation program at The Philadelphia Naval Hospital.

Classic in Rehabilitation

The Army program at Valley Forge has become a classic in the field of rehabilitation for blindness. With a large number of blinded casualties brought together for treatment, it was possible and necessary to experiment with new ideas and techniques and to test the feasibility of standardizing procedures in mobility training. The tremendous success of the program had immediate and far-ranging effects on the total field of work for blind persons and caused us to examine the directions we were taking in attempting to establish independence for blind persons.

The rehabilitation of the newly-blinded soldier at Valley Forge was defined and implemented according to certain general objectives:

1) Physical restoration

2) Vocational and economic restoration

3) Social restoration:

Social restoration referred to the need of the blinded soldier to gain personal independence in the routines of daily living and to develop his general orientation to life as a blind person. This involved development of an understanding of what the handicap of blindness was, how it would influence his life as a family and community member, and what he could do to adjust to his blindness.

The training directors at the Valley Forge Eye Center recognized that orientation to the immediate surroundings, the use of the remaining senses, and the ability to move about freely and at will were routines of daily living and were basic components, in addition to eating, shaving, and dressing, of personal independence for the newly-blinded patient. They also recognized that these activities had immediate therapeutic value, helping the patient to emerge from his shock and depression and begin to live again.

Consisted of 44 Lessons

Thus, while medical treatment was still being given, the patient was gradually and carefully introduced to techniques for self-care. As he became physically stronger, his activities and area of operation broadened, so that he was taught to move about his own cubicle, then the ward, then the entire hospital facilities, and finally outdoors in residential and business areas.

The orientation and mobility program for the blinded patient consisted of 44 lessons — 22 in the hospital and 22 outdoors. The cane was introduced in the seventh lesson. In moving about familiar, controlled situations, such as his own cubicle or various classrooms and offices, the patient was taught self-protective techniques without the use of the cane. However, for travel to various parts of the hospital and for all outside travel, the patient was taught to use a cane at all times. This provided the opportunity for him to practice and perfect the cane techniques and skills introduced in the lessons and prevented the formation of poor habits of posture and gait which can develop when the blind person is unsure of his safety in taking his next step.

It was at Valley Forge where the idea of a long cane as a mobility device for blind persons first became a reality. The long cane was developed because the people responsible for the retraining of the blinded soldiers at Valley Forge, and notably 1st Lt. Richard Hoover, director of physical reconditioning, orientation and recreation, had the courage and sincerity of purpose to say: "blind people travel miserably," and then do something about it.

What Hoover did was to lengthen the white wooden cane to 45 inches and devise a technique for using it which would provide maximum safety, ease and even grace while traveling. But he did not stop there. This cane, even though made of light wood, was heavy and cumbersome. This deficiency, combined with the frequent lack of an adequate supply of these canes during the war, caused Hoover to experiment with the possibility of using a light, durable metal tubing for the canes.

The cane that was subsequently developed and used at Valley Forge was the prototype of the special long cane used today in standard orientation and mobility training programs. It was approximately 46 inches long, weighed 8 ounces, and had a shaft one-half inch in diameter. The crook of the cane was "egg-like" in shape, similar to the crook of the shepherd's staff.12/

Orientors Given Thorough Training

The personnel selected to instruct the patients in basic orientation and travel techniques with the long cane were enlisted men recruited from all branches of the Army. Since these men had had no experience with blindness or blind persons prior to their induction into the Valley Forge program, it was necessary to develop a course of instruction to give the "orientors" basic knowledge and personal experience in what they would be teaching.

This training program extended over a two-week period and consisted of 98 hours of lectures, demonstrations, discussions and practical learning experiences in applying the techniques under the blindfold.

At the end of the basic training course, the orientors were tested on their knowledge and performance and thereafter were given on-the-job training and supervision as they worked with the patients. Meetings of directors, supervisors and orientors were held weekly to discuss problems of the patients and orientors.

This training program for the orientors at Valley Forge may well be considered historic, for it was the embryo from which grew the movement to

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12/ Richard E. Hoover, M.D. "The Cane as a Travel Aid," Blindness: Modern Approaches to the Unseen Environment, edited by Paul Zahl. New York: Hafner Publishing Co., 1962, p. 357.

professionalize the field of mobility instruction. The principles and procedures that evolved from this initial training program are reflected in modern philosophy of professional preparation of mobility specialists.

Even in its own time, the Valley Forge program of orientation and mobility began to influence the field, for in 1946 Richard Hoover returned to the Maryland School for the Blind, where he had previously taught physical education, and began to instruct the older students in the newly-developed and validated techniques of mobility with the long cane. In the summer of 1947, he gave two short, intensive training courses to sighted persons who were going to teach mobility in rehabilitation programs for blind adults.

One of the orientors from Valley Forge went to the Kentucky School for the Blind to inaugurate a mobility training program. He was the only one of the 17 orientors at Valley Forge who continued in the field of mobility when discharged from the Army, although several others have gone into different rehabilitative services for blind persons.

Needed Time to Evaluate Losses

As the programs of initial readjustment to blindness progressed at Valley Forge, Dibble and the Philadelphia Naval Hospital, it became increasingly clear that the blinded patient was not getting in these programs all that he needed to adjust to his blindness. He was learning mechanical and physical skills that objectively would assist him to live an independent life as a blind person, but often the patient was too recently blinded to feel the need for such training.

The blinded soldier needed time to evaluate his losses, take stock of his capacities, and reorganize his life. The Army felt that the blinded veteran could not make maximum use of job training and employment if he did not have his blindness under control. Therefore, in June, 1944, a training center for the "social readjustment" of the blinded veteran was established at Avon, Conn. Avon Old Farms Convalescent Hospital was designated for use by both the Army and the Navy, but the Navy decided to send its blinded personnel to the New York Institute for the Education of the Blind. Here the emphasis was on testing, guidance and counseling, and the blinded veteran received only two weeks' training in the special skills essential to living as a blind person.13/

The training program at Avon was of 18 weeks' duration and consisted of orientation and mobility, counseling and testing, and vocational guidance and training.

'Facial Vision' Emphasized

The orientation and mobility phase included orientation to the grounds, traveling with a cane in residential and business areas, and training of the remaining senses.

A great deal of emphasis at Avon was placed on research and the training of the remaining senses, especially "facial vision." Training in "facial vision"

13/ J. N. Greear, Ibid., pp. 188-208.

was also conducted at Dibble General Hospital, but was apparently considered unsuccessful. This was at the time when Dallenbach's experiments on "facial vision," or obstacle perception by the blind, published in 1941, were being widely discussed. Much work was done on developing a mental picture of the surroundings through the power of visualization, and a great deal was learned there which is being applied today in programs of total rehabilitation for blinded adults.

However, Avon seemed to have many artificial objectives in its training program. The trainees were discouraged from using the cane on the grounds in order to facilitate sensory training and many of the blinded veterans lost not only the skill they had developed in using the cane at Valley Forge but also their motivation to use a cane at all.

Avon Old Farms Convalescent Hospital was closed in 1947, all but the "long-term" medical cases having passed through the rehabilitation program by that time.

Center of Progressive Thought

Plans were made for a continuing Army rehabilitation program to handle those veterans who would lose their vision later on, and Hines Veterans Hospital near Chicago was appointed the Central Blind Rehabilitation Section.

The Blind Section took in its first patient in July, 1948, and as of February, 1964, some 1026 blinded veterans had been instructed in its rehabilitation program.

Almost immediately, the Blind Section at Hines became recognized in the field as the center of progressive thought and action on the mobility of blind persons. The Hines personnel has been responsible for the development, refinement and validation of formalized orientation and mobility techniques with the long cane. Through their work with many different types of blindness, alone and in combination with other physical disabilities, such as amputations of the upper and lower extremities, partial deafness and brain injury, the "Hines men" have accumulated a vast amount of knowledge and experience in mobility and sensory training.

In the establishment of the Blind Section at Hines, the orientors were carefully selected from areas such as teaching and corrective therapy and were given intensive training for a period of up to six months. Through their own experience under the blindfold, they learned how the use of the remaining senses and of effective techniques with and without the cane can enable the blind person to gather information about his surroundings and move about safely. In this way, they validated the techniques for themselves and were convinced that they were effective. Then the student orientors were taught through observation and supervised teaching how to teach the orientation and mobility techniques. Thus, the Hines men were the original mobility specialists in the field, and several of these orientors are in key positions around the country today.

Introduction, Observation Period

In 1949, Hines began introducing its validated approach to orientation and mobility training to personnel from agencies for the blind, rehabilitation centers, and schools for blind children throughout the country. These instructors came to the Blind Section for two and three-week periods and observed the application of the orientation and mobility techniques with the long cane to the blinded veterans.

This, of course, was considered only an introduction and observation period, for no one realized better than Hines itself that, although it had a responsibility to share its knowledge and experiences in mobility training with others, short exposures like this to mobility instruction were a risk — for Hines, for the untrained instructor and for prospective clients.

However, other private and public agencies and schools for the blind were faced with the pressing need of their clients to become mobile, for if they could not travel, they would not be able to function even minimally in other vital areas, such as in college or employment. Since there were no resources for trained mobility instructors, various types of personnel (blind, partially-sighted, and sighted) in the agency or school generally were permitted and encouraged to give mobility instruction to those individuals who seemed to need it.

Demands for Training Increasing

Usually the mobility instructor was a) a worker who knew something about the mobility techniques — through his own personal experience, through his exposure to a short-term mobility training program, or even through reading descriptions of techniques with the long cane found in a pamphlet or book, and b) a worker who happened to be in a position where there was a demand for the blind client to know how to travel, e.g., vocational counselor, home teacher, or physical education instructor. Many of these workers realized that they could not do an adequate job in teaching mobility; many thought they could.

But demands for mobility training were increasing, and people began to recognize that stop-gap services were not adequate to handle the burgeoning caseloads. In October, 1953, the first Mobility Conference was held in Gloucester, Mass., with the purpose of establishing standards for orientation and mobility instruction. At this conference, conducted with the supporting interest of the American Foundation for the Blind and the Veterans Administration and attended by active mobility and administrative personnel in the field, it was resolved that a coordinated effort should be made to provide scientific mobility training to blind persons, patterned after the Army's program. However, the field was not ready to accept this yet, and no action was taken. Yet mobility was being discussed more and more, and the subject of formal training for mobility instructors was becoming controversial.

The next major impetus for mobility instruction occurred in 1958 when the Office of Vocational Rehabilitation placed the training of mobility instructors on its priority list of personnel training needs in the field of rehabilitation for blind persons. From this action a significant chain of events followed, in which the Vocational Rehabilitation Administration has played a vital role. It has been the most influential single agent in organizing awareness of the need for qualified mobility instructors and in establishing mobility programs throughout the country.

In June, 1959, a National Conference on Orientation and Mobility, sponsored by a grant from the Office of Vocational Rehabilitation, was held at the American Foundation for the Blind in New York. The objectives of the Conference were to determine the basic qualifications necessary and desirable in a mobility instructor and to develop standards for the training of mobility personnel.

The participants at the Conference, highly qualified and experienced in the areas of mobility training and administration, unanimously agreed on two principles which should form the basis of any program of training for mobility instructors.

1) that the training program should be on the graduate level and should extend over a period of at least one year.

2) that the mobility instructor should be sighted.[14/]

The establishment of these criteria by a national assembly was revolutionary and marked the beginning of the professionalization in the area of mobility training.

Training of Remaining Senses

As an immediate result of the New York Conference, two graduate training programs for mobility instructors were inaugurated under liberal grants from the VRA. In June, 1960, the Peripatology Program was begun at Boston College with eight students. The Center for Orientation and Mobility at Western Michigan University began training its first four students in September, 1961.

The term "peripatology" is defined as the art and science of training the remaining senses of the blind person for optimum orientation and mobility. It is derived from the Greek: Peri-, meaning around, surrounding; patein, to walk; ology, referring to a science of. Thus, the concept of peripatology can be applied aptly to the learning of orientation and mobility skills by a blind person, as can the term "orientation and mobility" itself, for in its very roots it refers to the standardized body of knowledge and techniques which are used to teach blind persons how to navigate in his environment.

The Boston College program is 14-months long and graduates sixteen peripatologists per year. Western Michigan has a 12-month program and graduates twelve orientation and mobility specialists per year. The curriculum for both programs was developed according to the suggestions of the New York Conference and includes: Physical Orientation and Mobility; Dynamics of Human Behavior related to Blindness; Medical Aspects of Blindness; The Sensorium and its Relation to Blindness; and Cultural and Psychological Aspects of Blindness, in addition to the general and special education courses required by the universities to complete the master's degree program.

14/ Arthur Voorhees. "Professional Trends in Mobility Training." New Outlook for the Blind, Vol. 56 (January, 1962).

The practicum in physical orientation and mobility consists of the personal mastery, under the blindfold, of pre-cane skills and mobility techniques with the long cane and extensive observation and supervised teaching in the various settings where mobility instruction is given.

Need for Specialists Increases

To date, the graduates of the two university programs are teaching orientation and mobility in rehabilitation centers for blinded adults, residential schools for blind children, public school systems and community mobility programs throughout the country. In addition to teaching, some have taken administrative positions and some are entering research.

When the graduate programs were begun, it was estimated that approximately 100 mobility specialists were needed in the country. This has proved to be quite a low estimate, and the number is increasing rapidly as more agencies and schools begin to recognize the value of mobility instruction as given on a structured basis — value in terms of meaningful service rendered to the clients and professional growth of the agency and school.

In December, 1962, the Vocational Rehabilitation Administration established grants for selected demonstration projects in mobility training. Basically, the purpose of these projects is two-fold: to demonstrate the value of systematic mobility training with blind persons as administered by a competent, trained mobility instructor, and to assist reputable, progressive rehabilitation agencies to meet the mobility needs of the clients in their area when they cannot otherwise provide a professional training program.

For an agency to receive a demonstration grant, it must have on its staff or must employ a fully-qualified mobility instructor, i.e., one who has graduated from either of the university training programs for mobility instructors or one who has had five years or more of full-time experience teaching mobility in a recognized training centers.

Other VRA Grants to Experts

To date, ten proposals have been accepted as demonstration projects, and some are being implemented at the present time in agencies in various parts of the country. The results of these guided demonstration projects in mobility should give us valuable data on the effect of various physical and psychological factors on the development of skill in mobility, and, thus, our body of knowledge and techniques in the science of mobility will increase.

Several other VRA grants have been extended to experts in the development and administration of mobility training programs at Western Michigan University. One grant has provided for the establishment of a consultative service by which agencies and schools may obtain advice and assistance in developing new mobility programs or in evaluating and improving their present system of mobility training.

Other grants have provided for one-month training workshops in orientation and mobility techniques to be offered to those mobility instructors who are now teaching in the field but have not been formally trained. This is an important step in the long-range process of raising the quality of mobility training available to blind persons and establishing standards for the selection of mobility personnel.

The Federal support of mobility training programs — support in principle as well as in funds — is making it possible for more blind persons to develop adequate skill in mobility and thereby to realize more fully their capabilities in all other areas. It is also spurring acceptance of the mobility specialist as a vital member of the multi-disciplinary team working with the blind client in his habilitation or rehabilitation process.

Wide Gaps in Professional Standards

However, mobility instruction as a profession is new and of necessity must prove itself. For the field of work for blind persons has not yet fully accepted the fact that mobility can be learned according to a standardized method without sacrificing the individuality of the person who is blind. It is not yet understood that the trained mobility instructor knows how to apply the basic principles and techniques of mobility training to the individual's own physical, emotional and psychological requirements as he learns to become mobile.

There are still wide gaps in professional standards of mobility training throughout the country, and there is still resistance to the sighted, professionally-trained mobility instructor. Peripatologists and orientation and mobility specialists threaten with eventual displacement those now teaching mobility techniques who are not qualified, either because of blindness or lack of training.

But perhaps even more deeply threatening, the new definition of a qualified mobility specialist challenges the whole stereotypical framework of service to blind persons. This is that "the blind should lead the blind" — that only a worker who is blind can truly understand the needs of the blind client.

Some workers, burdened down with hostility to the sighted world (and this includes some sighted workers as well as blind) cannot accept the fact that while it is true that a sighted person can never know what it is really like to be blind, he can learn, through blindfold experiences, what it is like to operate without sight in different types of situations, e.g., in mobility. They will not concede that a sighted person, by personally analyzing the components of the mobility task, and studying the effects of blindness and the loss of mobility on the physical, intellectual and emotional functioning of the blind person, can teach, and should be the only person to teach, a blind person how to move about his surroundings safely and independently.

Moreover, to admit that training in basic skills is necessary or valuable for a healthy adjustment to blindness seems for some individuals to admit that the person who is blind is not a whole person. Perhaps this is the key to the rejection by many blind workers of special devices and special training programs, both for themselves and for their clients.

Guidance Devices and Research

At the same time that mobility training programs with the dog guide and the long cane are being established and made available to more blind persons, research is being conducted to develop electronic guidance devices which hopefully will enable at least some blind persons to travel more safely and efficiently and to learn more about his surroundings as he moves.

The concept of an electronic device is not new. In 1897 a scientist in Poland was the first to build a guidance device for the blind based on the photosensitive properties of elements. However, there were no technological possibilities for such a device in that age.

Organized research on guidance devices for blind persons began during World War II. The U. S. Signal Corps developed a scanning instrument using visibile light. In 1944 government research began with the establishment of the Committee on Sensory Devices under the National Research Council. The principle of sound-ranging was explored for its feasibility in detecting obstacles. Devices employing supersonic and ultraviolet media were developed, and by 1947, when the Committee on Sensory Devices was dissolved, fifteen experimental prototypes of guidance devices had been developed.15/

There was no publicly-financed program to develop electronic devices between World War II and the Korean Conflict. However, some independent research was done by Kallman, who developed a precursor of many other guidance devices, consisting of a lens to focus objects in the path of travel and giving the user a sound pattern.

Devices Vary in Structure

Since 1951 many types of guidance devices have been developed; two have been field-tested, with a program of instruction drawn up for one. In its International Catalog of Technical Devices, the American Foundation for the Blind lists 36 "guidance devices and systems," including the 15 developed under the Committee on Sensory Devices, and three types of electronic canes. Not all are the products of American Scientists; several are from Poland, Sweden, England, Italy, and Canada.16/

These devices vary in their structure and function. Some are portable; others are large and unwieldy. Some can detect low obstacles, or down-and up-curbs and holes, while others relay information only about large obstacles. Some scan the path of the traveler; one of the devices detects only edges.

Different types of signals — auditory (some binaural), tactile, and electrical pressure — are used to transmit information to the user through earphones, hearing aids and tactile stimulators in the hand, on the chest, or on the forehead.

Navigational devices, such as a magnetic compass and a straight-line direction indicator also have been developed for use in passing open spaces or in traveling in rural areas.

15/ C. W. Bledsoe. "Guidance Devices," Matilda Ziegler, October, 1959.

16/ Catalog and Appendix of Proceedings of the International Congress on Technology and Blindness. New York: American Foundation for the Blind, 1963, IV, pp. 47-56.

There are two general types of probes with which it is possible to explore the environment: the active, which sends out light, sound or radio waves and receives the reflected signal; and the passive, which scans the environment through a telescopic-like device and responds to light, radio or magnetic fields.[17] The guidance devices developed to date are not in general use by blind persons and are considered experimental prototypes.

Studies of the ultrasonic orientational behavior of bats and other echo-locating animals lead to the belief that a successful ultrasonic guidance device for blind persons is possible, although still in the future. Currently, it is thought that devices using a tactile stimulus for relay of information would be more successful than the auditory.

The engineering design of the electronic guidance device must take into consideration the following factors:

> size, weight, ruggedness, reliability, purchase and maintenance cost, learning period required, interference with other channels of information, attitudes of the user, the family, and the public toward the device.

Fundamental to the scientific development of the mobility guidance devices is a close working relationship between the technical engineer and the rehabilitation specialist, for while a device may be mechanically perfect, it may not give the blind person an effective means of obtaining information.

Answers Needed for Many Questions

No device should be so complicated that it will remove the blind person completely from contact with his surroundings. Artificial sensory impressions can never take the place of natural awareness, but if they are presented simply and in a logical manner, they can supplement the blind person's normal sensory functioning.

In developing electronic guidance devices, we must be seeking answers to such questions as: how much information does a person need in order to travel safely and with awareness? What types of persons will be able to use an electronic guidance device? Should the person be trained first with another device, such as the dog-guide or the long cane?

It was the consensus among the participants at the Conference of Mobility Rehabilitation Specialists held in September, 1961, in Washington, D. C., and at the Mobility Research Conference held at the Massachusetts Institute of Technology in October, 1961, that there is as yet no adequate substitute for the cane and dog as mobility aids and that what is needed from the technological field are devices which will give the blind person additional information, such as a detector of step-downs, and of high objects in the area through which

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17/ Bertil Jacobson. "Passive Systems," Proc. of The International Congress on Technology and Blindness. New York: American Foundation for the Blind, 1963, pp. 187-192.

the head passes, a range-indicator, and a navigational device to facilitate straight-line walking.[18/]

More work will be done on the subject of mobility devices when the International Conference on Mobility Research meets at The Hague in August, 1964.

Communication in Field Vital

Thus, with the human guide, the dog guide, the long cane, and the guidance device, we are developing a family of mobility tools, which if used selectively and according to their proper design, can enable an increasing number of blind persons to travel safely, effectively and independently.

In attempting to place mobility in perspective, it has become apparent that communication among the various types of personnel, programs and services in the field is a vitally important element in the modern process of mobility training for blind persons. Through conferences, meetings, writings, research and demonstration projects, we are able to keep abreast of current ideas, developments and progress in the field of work for blind persons and can consider them for their value in mobility.

In line with the increased communication which is part of the changing times in work for blind persons, the first Conference of Peripatologists and Orientation and Mobility Specialists was held in Washington, D. C., on April 27 and 28 of this year under the sponsorship of the VRA. Those peripatologists and orientation and mobility specialists who had been working in the field for at least one year met to exchange ideas, share their experiences in mobility training, and evaluate the progress in the field.

Hopes for the Future

Actively participating at the Conference were representatives from the staffs of Boston College, Western Michigan University and Hines, and supervisors from several of the mobility training programs where graduates are now working.

No solution to problems was sought at this initial conference. Rather, its purpose was to explore questions and define areas in the field of mobility which need to be examined. Several of the subjects discussed which will become increasingly important as this discipline grows and matures were:

> 1) the need for a clarification of the common terms used in mobility instruction.
>
> 2) the relationship of the peripatologist and the orientation and mobility specialist to the administrative structure of the agency and school.
>
> 3) and the selection of a common name for the professionally-qualified mobility instructor. Hopefully the resolution of the double

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[18/] J. W. Lisner, Ibid.

name will occur in the near future, so that unnecessary confusion and division can be dispelled among the mobility personnel themselves and among other workers in the field.

Thus, we can hope that in the future, through communication and interaction based on common understandings and goals, mobility training programs for blind persons will become more widespread and effective so that the mobility potential of every blind person can be more thoroughly realized.

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GLOBAL PROGRESS--
ADVENT OF A WORLD ORGANIZATION

By M. Robert Barnett

To assert that the formal establishment of the World Council for the Welfare of the Blind in 1951 was the signal for world cooperation in this specialized field would be incorrect. There had been frequent and varied instances of international cooperation and exchange, probably for a century. Since 1900, and then more dramatically after 1920, multilateral effort between representatives of several countries repeatedly occurred.

Indeed, a near-triumphant effort at the creation of a formal international vehicle surged in 1931 when there occurred a meeting truly identified as the first of many long planned and unquestionably desired. Although its form and existence were short-lived, this and all the other efforts at world reciprocity simply were the forerunners permitting opportunity for experience that culminated eventually with the body now known as the World Council for the Welfare of the Blind.

Earlier this year, in response to frequent inquiries about the origin, aims, achievements and future plans of WCWB, an informational outline was prepared by its officers. This writer has drawn heavily upon a draft that was graciously provided by Miss Annette Watney (Paris, France), Assistant Secretary-General, and her collaborators, Mr. John Jarvis (London, England), Secretary-General, and Mr. Eric T. Boulter, Associate Director of American Foundation for Overseas Blind, past Secretary-General of WCWB and a Vice President of that body.

ORIGIN

The World Council for the Welfare of the Blind grew out of a resolution adopted by the International Conference of Workers for the Blind held in Oxford, England, in 1949. At that meeting, it was decided the time had come to create an international organization whose task it would be to act as a co-ordinating body between elected national representatives of organizations of and for the blind, to present their recommendations with a view to their adoption by national governments and to encourage the maintenance of high standards of service to the blind all over the world.

An interim committee was, therefore, set up under the chairmanship of Mr. W. McG. Eagar, United Kingdom, known as the International Committee for the Welfare of the Blind. With the help of legal advisors, it was responsible for drawing up a draft constitution and for ensuring that the future organization should be registered in accordance with French law.

Only eight countries originally were represented in the International Committee, but at the constituent assembly which was held in Paris in July, 1951, other countries came into membership and the first Assembly in Paris in 1954 included representatives of 34 countries. Committees were set up to deal with specialized aspects of work for the blind and two autonomous bodies — the World Braille Council and the International Conference of Educators of Blind Youth — subsequently applied for and were granted affiliation with the WCWB as consultative committees on braille and education.

COMPOSITION

In 1951, Col. E. A. Baker of Canada became the first President of WCWB and was re-elected to this office by the two subsequent general assemblies in 1954 and 1959. Under his chairmanship, an Executive Committee of 25 members is responsible for the Council's general policies. The day-to-day administration remains in the hands of the Council's officers and is carried out by the Secretary-General. The Executive Committee meets every two and a half years to consider reports and to make decisions at policy level.

The General Assembly, which includes all honorary, representative and associate members, meets every five years to consider committee reports on progress and administration, to hear talks and to exchange views. It also agrees on recommendations to governments for future action or legislation and adopts resolutions laying down minimum standards.

Representative members of the Council are named by each of the WCWB member countries and serve on national delegations to the General Assembly. The size of each national delegation is in accordance with a formula based on general population. Associate members are persons or associations who have requested affiliation but do not represent a country. They have no voting rights but enjoy all other benefits of membership. Honorary members are individuals elected by the General Assembly to life membership in the Council in recognition of outstanding service to the blind at national or international level. There are at present 41 countries in membership and a number of others are connected with WCWB through membership in one or another of the committees.

The president, vice-presidents, secretary-general, treasurer and all other members of the Executive Committee are elected by the General Assembly. Since the Council has a world-wide membership, a balance between national groups is held to be indispensable and the Executive, by constitutional requirement, is representative of all geographic regions. The WCWB standing committees are elected by the Executive Committee for a five-year period and new elections are held immediately following each Assembly.

The following is a list of present officers: President — Col. E. A. Baker (Canada); Vice-Presidents — Prof. P. Bentivoglio (Italy), Mr. Eric T. Boulter (U. S. A.), Mr. K. Dassanaike (Ceylon), Prof. Dr. C. Strehl (Germany), Mr. S. Uzelac (Yugoslavia); Secretary-General — Mr. J. Jarvis (England); Treasurer — Mr. H. Amblard (France).

AIMS AND OPERATIONAL STRUCTURE

In the Constitution, the aims of the World Council are defined simply as: "to work for the welfare of the blind and the prevention of blindness throughout the world by providing the means of consultation between organizations of and for the blind in different countries, and by the creation of coordinating bodies where necessary, and for joint action wherever possible towards the introduction of minimum standards for the welfare of the blind in all parts of the world and the improvement of such standards."

This somewhat vague formula, however, does not really give a complete picture of the goals the Council has set for itself and is on its way to achieving. Besides providing help or advice to members and non-members seeking such assistance, the Council makes available up-to-date information on modern techniques in the education and training of the blind and tries to provide useful data about new technological devices, the welfare of the blind in general and specialized projects in its member countries in particular. The Council attempts to coordinate the activities of the various committees and, through the work of these committees, is vitally concerned with every aspect of work in our field. It plans to ensure that all information gathered by specialized committees is given widespread dissemination. Under its auspices, the World Braille Council is seeking to achieve world uniformity of braille symbols in the literary, musical and scientific spheres and ICEBY to ensure adequate educational facilities for all blind children. Other committees are active in their respective fields covering urban and professional employment, technical devices, prevention of blindness, rural activities and services to the deaf-blind. Other standing committees have been created to ensure a continuing exchange of views, experiences and information on matters of common interest within defined geographical areas. Such committees now operate within the Inter-American, Asian and European regions.

The Council aims at providing a broad forum for discussion between organizations of and for the blind the world over and at building up a central store of information on modern practices and techniques in rehabilitation. It also endeavors to provide guidance in the fields of educational and vocational training and to keep its members informed about all social and legislative matters relating to blindness and its prevention.

A major purpose of the Council, however, is to represent the blind and those who work in their service at the international level and to place the needs and aspirations of the blind before the governments of the world, to recommend measures for improving their standards of living and to encourage all social and legislative action to achieve the full integration of the blind in the general community.

FINANCE

At the outset of the Council's existence, much of the expense involved in conducting its affairs and arranging for meetings of either the Executive Committee or the General Assembly was met by grants from organizations for the blind in several countries. Essentially its continuing financial base is found in the payment of membership fees by each of the countries in good standing at the rate of $100 per year for each of the official delegate seats to which it is entitled. For example, a country of less than 20 million population, eligible for two delegate seats, pays an annual membership fee of $200; a country with population between 20 million and 40 million, entitled to four delegate seats, pays an annual membership fee of $400; a country with population exceeding 40 million, entitled to six delegate seats, pays an annual membership fee of $600.

STATUS

The World Council has been granted consultative status with the Economic and Social Council of the United Nations, with UNESCO, UNICEF, and with the International Labor Organization. In addition, it enjoys a close relationship with the World Health Organization and other international groups. It is a member of the Conference of World Organizations Interested in the Handicapped, the Union of International Associations, and the International Conference of Social Work; and has gained widespread recognition as the only responsible world organization covering all aspects of blindness and its prevention.

ACHIEVEMENTS

As one means of achieving its purposes, the Council has sponsored or participated in a number of important international conferences in addition to its own General Assemblies and committee meetings. An International Conference on Braille Music Notation took place in Paris in 1954 under the sponsorship of WCWB, UNESCO and American Foundation for Overseas Blind. This led to the publication of an international manual on braille music notation and provided the basis for further negotiations with a view to reaching world uniformity in this field.

A Pan American Conference on the Welfare of the Blind and Prevention of Blindness was held in Sao Paulo in 1954. A European Seminar on the Rehabilitation of the Blind held in London in 1956 was jointly sponsored by the World Council and the World Veterans Federation, and further conferences were held in Tokyo (Far East Conference on Work for the Blind) in 1955, Inter-American Conference at Guatemala in 1961, in New York (International Congress on Technology and Blindness) in 1962, and in Kuala Lumpur (Second Asian Conference on Work for the Blind) in May, 1963. The leadership of the Council is keenly aware that these events could not then have happened, or will not happen in the future, without the initiative, industry and financing provided by organizations within a country or by several cooperating national bodies. World Council participation, however, has unquestioned value in the providing of a sense of unified approach as well as guidance in the structuring of such conferences.

Meetings of the General Assembly have been held in Paris and Rome in 1954 and 1959. The next quinquennial assembly is scheduled to take place in New York City in August, 1964. Meetings of the Executive Committee have been held in Paris, France (1951), Bussum, Netherlands (1952), Como, Italy (1953), Paris, France (1954), London, England (1956), Colombo, Ceylon (1958), Rome, Italy (1959), and Hanover, Germany (1962). There also have been meetings of the two consultative committees. The International Conference of Educators of Blind Youth's meetings have been convened in 1952 (Bussum, Netherlands), 1957 (Oslo, Norway) and 1962 (Hanover, Germany). The next conference is scheduled for Boston in 1967. The other eight committees have held a number of meetings during the Council's existence.

As a result of concerted action by the World Health Organization, the WCWB and the International Association for the Prevention of Blindness, 1962 was declared "Prevention of Blindness Year" and April 7 of that year "Prevention of Blindness Day."

Louis Braille Birthplace Museum

In 1956, it was decided that the WCWB should undertake responsibility for the upkeep and development of the home and birthplace of Louis Braille as an international shrine and museum. It has received wide publicity, with generous donations for the support of its maintenance the result. Blind persons from all over the world call at Coupvray to visit the museum and it is hoped shortly to complete negotiations to have it classified as an historical monument.

An international exhibition of technical devices, aids and games for the blind has been established at the Paris headquarters of the World Council in cooperation with the American Foundation for Overseas Blind. A small library of journals and magazines in braille and inkprint is also available there for consultation.

An International Catalogue of Braille Music and a Revised International Manual of Braille Music Notation have been published under the auspices of the World Braille Council, the former being undertaken by the AFOB at the request of the Braille Music Conference. Other useful printed reports or leaflets have been distributed by the WCWB's standing committees, among them three ICEBY reports, a manual on communication with deaf-blind persons, a leaflet on the employment of the blind and a leaflet on the Louis Braille Museum. A complete catalogue of technical aids and appliances has been published jointly by the American Foundation for the Blind and the Royal National Institute for the Blind with the official endorsement of the World Council. The proceedings of General Assemblies and the reports of the various committees are made available to all members.

The World Council publishes a semi-annual Newsletter designed to act as a link between its members. It has wide circulation and also is made available to many international governmental and non-governmental organizations and other groups interested in our field. It aims at keeping members informed of all changes in the administration or leadership of organizations of and for the blind the world over, new legislation concerning the blind, special projects or achievements in work for the blind, future plans and meetings.

An international catalogue of films about the blind and some short monographs on specific aspects of work for the blind also have been prepared and circulated by the Council.

"From the small nucleus of experts who met in 1949 to form the international committee, the World Council has grown into a widely representative and comprehensive world organization," the official description leaflet states. "Its influence is growing and — spurred on by the accounts of similar projects in other lands — many countries have initiated new and progressive programs for the blind. As the years pass by, a number of changes have occurred in our membership through death, resignation, illness or other causes. We were fortunate during the initial period in being able to draw on the experience of many pioneers in the field of blind welfare, who continue to give valuable advice as honorary members of the Council. But, there are new breezes stirring the younger independent nations of the world. The leaders of the past are not forgotten — they laid the firm foundations of our work. But the future depends on the young and dynamic leaders who face a tremendous task in those countries where the incidence of blindness is highest. The days of tradition are over and new methods, new enthusiasms, are again in the air. It is not that all that is new is necessarily good, but what is best in modern methods and techniques must in the very nature of progress take the place of the older ways, not because they were bad in themselves, but because times change, the world moves on, and blind welfare cannot afford to remain static."

COUNTRIES REPRESENTED AT ORGANIZING CONVENTION OF WCWB — JULY 1951 — 14, rue Daru, PARIS 8^{o}, FRANCE

Austria
*Belgium
Canada
Finland
*France
*Germany
Greece
Ireland
*Italy
Netherlands
Norway
*Sweden
Switzerland
*United Kingdom
*United States
*Yugoslavia

*Countries represented in person: others represented by proxy.

41 COUNTRIES IN GOOD STANDING AS MEMBERS AS OF JANUARY, 1964

Australia
Austria
Belgium
Brazil
Canada
Ceylon
Colombia
Czechoslovakia
Denmark
Ethiopia
Finland
France
Germany
Ghana
Guatemala
Hungary
India
Ireland
Israel
Italy
Japan
Jordan
Malaya
Netherlands
New Zealand
Nigeria
Norway
Pakistan
Poland
Portugal
Spain
Sweden
Switzerland
Syria
Tunisia
Turkey
Union of S. Africa
United Kingdom
United States
Venezuela
Yugoslavia

U. S. PERSONALITIES (AND THEIR TITLES AT THE TIME) WHO PARTICIPATED IN INTERNATIONAL CONFERENCE OF WORKERS FOR THE BLIND OXFORD, ENGLAND — AUGUST, 1949

1. Mr. Alfred Allen, Secretary-General
   American Association of Workers for the Blind
   New York, New York

2. Mr. Eric T. Boulter, Assistant European Director
   American Foundation for Overseas Blind
   New York, New York

3. Mr. Joseph F. Clunk, Chief
   Services for the Blind
   Office of Vocational Rehabilitation
   Federal Security Agency
   Washington, D. C.

4. Dr. Gabriel Farrell, Director
Perkins School for the Blind
Watertown, Massachusetts

5. Dr. Robert B. Irwin, Executive Director (Chairman of Conference)
American Foundation for Overseas Blind
New York, New York

6. Mr. Michael J. Shortley, Director
Office of Vocational Rehabilitation
Federal Security Agency
Washington, D. C.

7. Miss Ruth Wilcox, Staff Assistant
American Foundation for Overseas Blind
New York, New York

U. S. DELEGATES PARTICIPATING IN 1954 GENERAL ASSEMBLY — PARIS, FRANCE

1. Mr. Alfred Allen
2. Mr. M. Robert Barnett
3. Mr. Eric T. Boulter
4. Mr. George Card
5. Mr. Joseph Clunk
6. Mr. Robert Thompson

U. S. DELEGATES PARTICIPATING IN 1959 GENERAL ASSEMBLY — ROME, ITALY

1. Mr. M. Robert Barnett
2. Mr. George Card
3. Mr. Peter J. Salmon (by proxy)
4. Mr. Hulen C. Walker
5. Dr. Edward J. Waterhouse
6. Mr. H. A. Wood

PRESENT DELEGATION TO BE SEATED AT AUGUST 1964 GENERAL ASSEMBLY — NEW YORK CITY

1. Mr. M. Robert Barnett
2. Mr. Eric T. Boulter
3. Dr. Gordon B. Connor
4. Miss Marjorie S. Hooper
5. Dr. Jacobus tenBroek
6. Mr. J. M. Woolly

OTHER INDIVIDUALS WHO HELD MEMBERSHIP ON THE U. S. DELEGATION FOR VARYING INTERVALS DURING INTERIM YEARS

1. Miss Lois Cox
2. Mr. Jake Jacobson
3. Mr. Roy Kumpe
4. Mr. Donald W. Overbeay
5. Capt. M. C. Robinson
6. Mr. John Taylor

AMERICAN ASSOCIATION OF WORKERS FOR THE BLIND 1895-1964

By Norman M. Yoder, Ph.D.

> "The AAWB recognizes and endorses the trend of the past 30 years toward the development of Federally-financed programs of services to disabled persons in partnership with State and local, public and voluntary organizations. In the past, the trend has been toward enactment of Federal legislation on a categorical basis. The current trend is toward enactment of legislation, by the Congress, on a broader basis, so as to provide commonly needed services and benefits to all disability categories within a single legal framework.
>
> "The AAWB also recognizes that work for the blind over the years has taken the leadership in developing many types of categorical programs, both through voluntary effort and tax-supported effort, and has consequently spearheaded and pioneered in the development of many valuable programs which would meet the needs of all types of disabled persons. The AAWB welcomes the development in more recent years of organized groups interested in the welfare of other categories of disabled persons and expresses the hope that these organizations will profit from the long experience of work for the blind in program development especially with regard to the evolution of standards of services.
>
> "In view of the trend of the times toward the development of programs within the framework of broad legislation encompassing all types of disabled persons, and in view of the growth of active special interest groups advocating programs to meet the needs of other categories of disabled persons, it is the declared policy of the AAWB to work cooperatively with such groups in order to achieve objectives which encompass the mutual interests of all, provided that such programs meet the needs of, and are in the interest of, blind and visually impaired persons."

The AAWB — From 1895 to Now

What are the factors which, in the more than 60-year history of the AAWB, have led to this statement incorporated in its published principles?

To write a history of our Association around the names of the great leaders in work for the blind would inevitably omit several who deserve commendation. It is therefore the purpose of this article to examine the broad and important trends from 1895 to the present time which led to the creation of a published set of principles that stand as the beacon for the future.

The names of those who contributed much to the development of the AAWB as Presidents are appended at the end of this article. Many who gave much of themselves to the Association and who did not achieve the office of the President have secured an honored placed in the memory of those who continue to further the efforts of the AAWB. With this in mind, let us briefly look back over the years to 1895 when the first organized effort expressing concern over the plight of the blind and visually impaired came into being. From that beginning, we shall endeavor to trace the history that today has established an association which embraces the layman, the physician, the voluntary worker and the professional worker, dedicated to improve the social and economic condition of those who have lost their sight.

Four Approaches to Solution

In 1895, at St. Louis, Missouri, the forerunner of the AAWB came into being. At that time, a group of individuals who were concerned about educational opportunities for the blind formed the American Blind Peoples Higher Education and General Improvement Association, and for several years thereafter this group met to consider methods by which blind and visually impaired persons might have an opportunity to advance themselves in the society of those days.

The concern, as expressed both in the publication "Problems" and in the minutes of the meetings, indicated four possible approaches to the solution of this particular problem. These early pioneers advocated: (1) a specialized college to serve the blind; (2) Governmental scholarships for the blind; (3) non-segregated admission to existing institutions of higher learning; and (4) the annex theory, which was a combination of the first two suggestions, namely, that scholarships be provided and a segregated unit be established in an existing college or university specifically designed to meet the needs of the blind.

Until 1903, educators, blind persons and others wrestled with these problems in an effort to interest Governmental officials to become vitally concerned with the educational needs of the blind.

Thus, under the presidency of Ambrose M. Shotwell of Lansing, Michigan, the conference turned its attention to other problems concerning the welfare of the blind. It began to examine special tactual type forms to be introduced to the existing schools for the blind, and considered two other problems, namely, the development of some kind of pension for the blind, and retreats for the blind. In this area the conference was most concerned with the needs of the older blind person.

Thus, at the turn of the century, the early history of the organization recognized and attempted to deal with the problems of educating the young blind person and the need to provide security for the older blind person.

The 1905 convention, meeting in Saginaw, Michigan, summarized its philosophy in a picture of the Michigan Employment Institute for the Blind, the outline of which expressed the philosophy, "We ask that blind persons be given an opportunity to earn their own living. We do not approve any system to pauperize them. We are not asking for them a degrading pension, or the abstract glories of higher education."

With this as the guiding principles, the organization then included on the agenda of the conference such items as: industrial education in schools for the blind; and employment of the blind in trades, in skilled labor areas, in institutional areas, and in professional areas. Much of the conference time was devoted to the continuing problems of higher education, standardization of a tactual reading system, and continuing expressions of concern for the older blind person. Thus, in the biennial convention of 1907, the conference designated four major committees to deal with these continuing problems. They were: (1) higher education; (2) Federal pensions; (3) a uniform system of embossed type; and (4) the prevention of blindness.

Other items discussed during this convention included: homes and boarding problems of the blind, including the provision of nurseries for blind babies; occupations for the blind; while for the first time, attention was given to field work for the blind in the area of home teaching. Thus, in something over 10 years, the rules in the foundation of the AAWB were laid — a concern for the problems of people, with the further thought of arriving at a solution to those problems through study, research and an awareness that some of these solutions could be accomplished only through positive and constructive legislative action.

Express Concern for People Everywhere

During his second term in 1909, Edward J. Nolan led the Association membership into Columbus, Ohio, and refocused its attention on the consideration of the education and the employment of the adult blind, and the general welfare of the blind. This conference also noted for the first time that these objectives were not only for the United States, but also for the dependencies of the United States.

Thus, at an early period, the AAWB in convention assembled expressed a concern for all people within and without the borders of the country. In 1909 the convention closed its meeting with the following strong recommendations: (1) integration at the grade-school level of blind and sighted children; (2) the establishment of a national bureau of information concerning blindness, similar to the bureau established concerning the deaf; (3) the establishment of a census of the blind; (4) the organization of a press committee to better familiarize the general public, not only with the problems facing blind persons, but with the recommended solutions stemming from these studies.

Two years later, again under the Presidency of Mr. Nolan, the conference reviewed the experiences accumulated in the intervening years. Its attention was focused on employment opportunities for the adult male, selective placement and competitive opportunities for the female, and, for the first time, the Association expressed concern in a definitive matter respecting the social adjustment of the blind person, expecially blind workers, in the life of the community. With each intervening conference the Association's concern and viewpoint broadened in scope, keeping constant pace with the times.

In the 1913 convention, three events occurred: (1) the Committee on Embossed Print submitted a significant report. It proposed that $10,000 be raised to continue the work of that committee; (2) the AAWB recognized other organizations in the field and assessed the value of cooperative efforts, especially with those of the American Association of Instructors for the Blind. To this end a committee was appointed to work with the latter organization in selecting a time and place with a view to holding at least some joint meetings, if not developing a common agenda for a total convention; (3) the conference took note and commended certain schools for the blind in hiring competent blind persons on their instructional staff. It is important to note that some 51 years ago there was concern expressed that all organizations and associations concerned with serving the blind should pool their efforts in a total effort rather than focusing separately, and to some extent narrowly, on specific problems.

Influence of Two Groups Evident

The joint committee appointed in 1913 met with success, for in 1915 the American Association of Workers for the Blind and the American Association of Instructors for the Blind met in Berkeley, California, coinciding with the Panama-Pacific International Exposition.

The influence of the two groups was evident throughout the conference and its proceedings, for the attack on problems concerning the blind was on a much broader base. Discussions included the blind beggar on the streets of the nation, while the problems of the trained musician were recognized for the first time as a concern of the Association. The conference also concerned itself with adequate testing of the blind to better evaluate the potentials of the individual.

For the first time, the National Committee on the Prevention of Blindness, (now the National Society for the Prevention of Blindness), with paid staff members, presented a report to the delegates assembled, outlining its effort in public education concerning prevention, and included a display of pamphlets covering such topics as "Babies' Sore Eyes," "Prevention of Blindness," and a definitive report on "Trachoma."

Other actions of importance came from the joint meeting. First, it was recommended that a national industries for the blind should be established. This was given impetus when a representative of the National Industries for the Blind of England spoke to the delegates. To this extent the 1915 conference took on an international flavor.

Second, with the support of the AAIB, the AAWB accepted the report of the Uniform Type Committee which recommended the adoption of "The Standard Dot System," (a revision of the Grade II Braille then in use in England) for general use, provided our English colleagues would accede to and also accept the revisions, and authorized the Committee to negotiate with the British on the points in question. Thus, in the span of 20 years, from a concern for higher education, the AAWB had moved near to the acceptance of a uniform printing method, joint sessions with instructors of the blind, prevention of blindness, testing, the abolition of mendicancy, the employment of musicians, the employment in competitive areas for males and females, and the establishment of a national industries for the blind.

Let us now examine the next two decades for accomplishments. With the impact of World War I, the AAWB held its 1917 convention at Casco Bay near Portland, Maine. Continuing interest in the major problems of its first twenty years of history was exhibited. In addition, the conference expressed concern relative to medical problems and further educational problems. Many of the papers presented at this convention concerned themselves with: (1) outdoor relief; (2) causes of failure of the blind; (3) the role that the blind could play in aiding their own cause; (4) the relationship of schools for the blind to total services; (5) mobility; (6) the problem of the blinded veterans and an expressed concern for the lack of any organized method of handling the blinded veteran.

Common System of Tactual Print

In 1917, the Legislative Committee of the AAWB came into being with the mandate to draft bills for the purposes of improving the status of blind persons, plus a second committee to develop cooperative purchasing for industrial institutions (workshops) furnishing employment to the blind.

The most far-reaching accomplishment of the Portland Convention was the official adoption of "Revised Braille Grade 1-1/2." While this system was not the full "Standard Dot System" hoped for, since the British had not responded to the negotiations of the American Committee, it did, at long last, provide a single embossed system for the United States, plus a system which was based on the English notation, although not so highly contracted. This action of the AAWB, which had been the main promoter through the years for a common system of tactual print for America, was ratified the following year at the 1918 Convention of the AAIB, and immediately thereafter by the American Printing House for the Blind.

Other resolutions from this convention recommended that the Legislative Committee draft an outdoor relief bill, and that the AAWB endorse equal pay for equal work performed by a blind person, assuming that the blind person performed on an equal basis with his sighted colleagues. By resolution, the convention opposed any support for a school serving the deaf and blind. Two other resolutions commended the National Committee on the Prevention of Blindness for its cooperation with the AAWB, and, by resolution, the convention recognized the status and quality of the home teaching system for the adult blind.

Under the Presidency of H. Randolph Latimer the AAWB met in Toronto, Canada, in 1919. Mr. Latimer, then Superintendent of the Maryland School for the Blind, was to become the leader and pioneer for our present-day philosophy. Noteworthy in the Toronto convention was the announcement by the Standard Uniform Type Commission that the English-speaking world had found commonality in braille printing through the establishment of grade 1-1/2. However, both the British Commission and the American Commission determined to appoint subcommittees to further study the advancement of standard braille throughout the world.

Beyond this, the 1919 convention held its first series of evening roundtables, in which thorough discussions concerning employment, ambition and apathy in work for the blind, individual treatment vs. group treatment in reference to public schools, local placement, shop management, business careers for the blind, and a variety of other topics were considered. New areas of employment included massage, and this convention cited the first industrial organization for its program of hiring the blind as part of the work force.

Directed Toward Central Organization

Looking to formalizing its structure as an association, the delegates assembled established two committees, one on Nominations and one on Resolutions. Again, the AAWB reached across the borders of United States in order to work closely with members from Canada and Great Britain in furthering the best interests of blind persons.

The Ninth Biennial Convention was held at Vinton, Iowa, in 1921. This convention concerned itself with a single purpose, and towards which all the papers presented were directed—the creation of a central organization to cooperate with, and supplement the work of, existing agencies in work for the blind. It was at this convention, on June 28, 1921, that the AAWB adopted the enabling resolution authorizing the creation of the American Foundation for the Blind—without a dissenting vote. The Act of Incorporation, in the State of Delaware, was accomplished in the succeeding months, and Mr. Latimer himself became the first Executive Director of the Foundation.

The Tenth Biennial meeting of AAWB occurred in Janesville, Wisconsin, at the end of which Robert B. Irwin, Director of the Bureau of Research of the American Foundation for the Blind, assumed the Presidency.

The 1923 convention devoted attention to: (1) a correspondence school for the blind by William A. Hadley of Winnetka, Illinois; (2) a guide dog trainer from Germany demonstrated the training of a shepherd dog before the group; (3) the further development of home-teaching and recreation programs; (4) prevention of blindness and the development of sight-saving classes; (5) a deaf-blind person addressed the evening meeting of the Association. In 1923, 315 persons were in attendance, half of whom were blind.

During the next four years the AAWB concerned itself with problems already stated. However, in its 12th Biennial meeting held in Atlantic City, N. J., in 1927, we begin to see emerging from thirty years of activity the outlines of our present structure with the appearance of a separately published volume of proceedings, rather than the publication of papers of the conference in the OUTLOOK FOR THE BLIND.

Several major areas of concern confronted the 1927 convention. They included: (1) social adjustment of the blind in school and beyond school; (2) vocational adjustment; (3) blind relief; (4) the blind beggar; (5) housing problems for the blind; (6) new developments and occupations for the blind, including the first recognition of poultry-raising; and (7) work for the blind in other countries besides England and Canada, which included industrial life in Central Europe, national organizations for the blind which, beside prevention of blindness, included the Hadley Correspondence School and the American Braille Press.

The convention then directed the American Foundation for the Blind to concern itself in the following areas: The protection of existing broom-shops because of the inroads being made by Prison Industries in the broom market.

In addition, the Foundation was asked to investigate activities of organizations allegedly selling goods for the purpose of aiding the blind. The convention also endorsed the American Foundation's experimental and demonstration braille print-shop, and requested the Foundation to cooperate with the Committee of Work for the Blind of the American Library Association.

For the first time the AAWB recommended that the Federal Government open its buildings for the purposes of granting business opportunities for blind persons.

AAWB Begins to Show Strength

Two other events of importance occurred in this biennial meeting: (1) presentation of the first evidence of recognizing Lions International for their work; (2) an appeal to the President of the United States and to the United States Tariff Commission, as well as to the Congress of the United States, to increase the tariff on the importation of rag rugs which appeared to be jeopardizing the American market.

Thus, in three decades, the AAWB found and concerned itself with basic problems and at this point in its history began to demonstrate its strength with its direct appeal to the President of the United States and subordinate Federal agencies.

In 1929, the Thirteenth Biennial Convention convened at Lake Wawasee, Indiana, where 25 agencies of national stature serving the blind were present, as well as individual delegates. With the presence of these groups, the AAWB undertook to concern itself with membership. It insisted that the American Foundation for the Blind undertake a vigorous campaign to secure membership. It also dealt with the problem of literature, speeches, radio time, etc., which might be detrimental to the blind. In its program activity, a committee was authorized, under a $500 grant, to study existing relief problems of the blind, with a view to making definite plans for future legislative action on the subject.

Seeds for the Ethics Committee and the Seal of Good Practice were sown in this meeting, and the group also, in cooperation with the National Society for the Prevention of Blindness, concerned itself with definitions of blindness and recommended that the 20/200 definition be considered.

Insofar as the structure of the AAWB was concerned, two committees were added — Necrology and Auditing.

The 1931 Convention of the AAWB met in New York City and saw the election of George F. Meyer as its President. During this convention emphasis was placed on the use and distribution of embossed print throughout the country, and a study was undertaken to determine the feasibility of recording literature for use by the blind. More importantly, this Convention joined with the American Association of Instructors of the Blind in authorizing the appointment of a three-man American delegation to make firm negotiations with the British Type Committee looking to the standardization of the braille code for use throughout the English-speaking world. The result of these negotiations was STANDARD ENGLISH BRAILLE, GRADES I and II, as adopted by the London Conference in 1932, which remained the official code until the adoption of ENGLISH BRAILLE, AMERICAN EDITION, 1959, by the two Associations in 1958.

Upgrading of Professional Persons

One other major development occurred in 1931, namely, the establishment of the Committee on Ethics and a recognition that a firm code of ethics should be adopted by the AAWB.

With this move, the Association also demonstrated an interest in establishing standards for persons working in institutions serving the blind. It appears to be the first effort by the Association to involve itself in an upgrading of professional persons in work for the blind.

Richmond, Virginia, was the site of the 1933 biennial meeting of the AAWB. Here, for the first time, a sharp focus was directed toward the membership of the organization. The leaders of the Association were divided on this issue, some holding that the Constitution was not being followed and that, in effect, no one, including the officers of the Association, could speak effectively for the membership. It was the first evidence that as an Association the leadership not only examined the problems relating to blindness, but were engaged in the growing pains of evaluating the usefulness, the weakness and the strength of the AAWB.

Topics covered during the course of the meeting included talking book research, expansion of those topics and areas covered in previous meetings, plus a talk presented by Joseph F. Clunk on "Placing Blind Labor in Depression Years."

Having now had a 38-year history, the Association also examined 100 years of progress in work for the blind.

Before its adjournment, the Convention gave its attention to additional items such as: (1) a continuing development between State and local agencies; (2) opportunities for the blind in Federal Civil Service; (3) availability of orders to workshops for the blind from the Federal and State Governments. In its acceptance of the report of the American Braille Commission, the Association officially adopted STANDARD ENGLISH BRAILLE as the official braille code for the United States and Canada, and set up a continuing committee to aid in its implementation.

The structure of the convention continued to devote attention to national issues and began to lay the groundwork for positive legislative action and to national leadership, despite the fact that in 1933 there was a division of opinion as to the strength of the Association. It appears that, because this convention had the courage to examine its weaknesses, the subsequent years permitted it to prescribe for its improvement.

The 16th Biennial Convention, held in Louisville, Kentucky, in 1935, saw Col. L. L. Watts of Virginia elevated to the Presidency of the Association. During the course of that convention most of the areas covered in previous meetings were again reexamined.

The highlights of the meeting surrounded the activities of the committees which reported, in particular the Committee on Employment in Federal Civil Service and the Committee on the Constitution of the Association. It was at this point that historically we saw the development of the interest-group concept.

In 1937, the AAWB again returned to Toronto, Canada. Notable at this meeting was a general session devoted to the Federal Government and its responsibility to the blind person. Addressing the convention was Jane Hoey, then associated with the Federal Social Security Administration. The second general session devoted time to the development of better public relations throughout work for the Blind.

A highlight of the 1937 convention was the honoring of Miss Lydia Y. Hayes, a graduate of Perkins Institute, a home teacher, and the organizer and founder of the New Jersey Commission for the Blind. Tribute was paid to her as a pioneer in State services for the blind.

Vocational Guidance Work Extended

Specialized group meetings in this convention consisted of home teaching, prevention of blindness, teaching in schools for the blind and day schools, occupational therapy, library services and music. It should be noted that throughout the history of the AAWB, the Commission on Standard Type continued to function with varying degrees of emphasis. At the conclusion of the 1937 convention it was recommended to the delegates assembled that the Committee on Vocational Guidance continue and extend its work to validate, through experimentation, some of the general findings then available.

The Los Angeles meeting of AAWB in 1939 again witnessed an effort on the part of the Association and the AAIB to arrive at a working level in which the two groups would again join. To this end a committee functioned, but was never able to resolve any specific moves toward unification.

During the Los Angeles meeting, the President of the AAWB announced that the "Shotwell Memorial Award for Meritorious Work" would become a permanent custom of the AAWB, and two presentations were made, one to H. R. Latimer, then serving as Executive Secretary of the Pennsylvania Association for the Blind, and one to C. W. Holmes of Massachusetts. Both were Past-Presidents of the AAWB.

Two major actions of the convention then followed: (1) by resolution, it recognized the passage of the Randolph-Sheppard Act and commended its provisions in permitting blind persons to have greater business opportunities; (2) the convention resolved that Title X of the Social Security Act be modified to include the statement that each State would adopt its own interpretation of the words "needy individuals who are blind." The convention made one other recommendation in legislation, supporting a bill requiring railroads to grant a one-fare arrangement to blind persons travelling with guides.

At its conclusion, the convention adopted a resolution recommending that all agencies, both voluntary and State, develop a league of friendly visitors for the lonely adult blind as an integral part of service. By this action, the

AAWB assumed the position that this service was not a function of home teaching. With the war in Europe underway, and with but a few months before the United States became involved, the AAWB in its 1941 Convention held at Indianapolis, Indiana, devoted its general session considerations to: (a) public assistance; (b) prevention of blindness; (c) improved talking books; (d) identification and sale of blind-made products; and (e) the national changing social and economic structure resulting from the conflict abroad. It was at this convention that the first Canadian, Col. E. E. Baker, Managing Director of the Canadian National Industries for the Blind, acceded to the Presidency of the Association.

Studied Public Assistance Programs

Special interest groups which functioned during this convention were: home teaching; vending stand problems; integration of services for the blind with social service agencies for the sighted; employment; and other areas. A committee on research also reported and indicated that this area was in its infancy and that there was a great need for research.

The American Foundation for the Blind was then in the process of studying a multiplicity of public assistance programs for the blind with a view to bringing some orderliness out of chaos.

Significantly, the AAWB in 1941 firmly established a Board of Professional Standards for the purposes of certifying home teachers of the adult blind, with accreditation to be based on standards to be adopted by the Association.

The AAWB took note of the existing lack of adequate textbook materials in psychology and social work, and resolved that the Library of Congress should become active in the provision of these materials in order to equip blind persons to better compete, both in the educational facilities and in professional areas of employment.

At the close of this convention Peter J. Salmon became the President for the next biennium.

As the 20th Biennial Convention opened in 1943 at Columbus, Ohio, the AAWB had eight standing committees operative: (1) The United States Committe on the War Blind; (2) Professional Standards; (3) Joint Advisory Committee on Research; (4) Joint Legislative Committee; (5) Joint Vocational Guidance Committee; (6) Committee on Differentiated and Integrated Approach on Work for the Blind; (7) Committee on National Agencies for the Blind; (8) The Past Presidents Advisory Committee. These functioned in addition to committees on Auditing, Resolutions, Necrology, Standard Type and others which have achieved permanency in the history of the organization.

The full impact of World War II created the back-drop for the general sessions of this convention. All of the areas discussed were framed in light of the war conditions and in the light of the growing need for Federal-State participation in services to the disabled person.

One area which stimulated discussion and review was the work-study plan outlined by Overbrook School for the Blind of Philadelphia, in which a student worked for a given period of time and then returned to the school for the pursuit of regular curricula. It was an adaptation of the Antioch Plan but did introduce into the system practical work experience as part of the course.

Cites Responsibility for Rehabilitation

The AAWB, by resolution, led an attack on the establishment of additional organizations supposedly serving the blind. The resolution was specifically pointed at the American Foundation of the War Blind and the California Association for the Blind.

Further, the AAWB, by resolution, indicated to the Federal Government and to the 48 states that each had a responsibility for the rehabilitation, not only of the war blind, but of the civilian blind as well.

The convention also took a positive stand on the matter of employing professional and trained blind persons in agencies for the blind, stating clearly that these individuals should be selected from well-qualified applicants, that if they met this condition they should expect to receive pay equal to sighted workers in the same field, and that any additional expenses relative to the employment of guides and or travel must of necessity be borne by the employee.

Finally, the AAWB accepted the recommendation that there was a need for the adoption of a set of principles and policies underlying professional service to the blind. While throughout the history of AAWB threads of these concepts were evident, it was in 1943 that we find the first efforts towards professionalization of work for the blind. This came at a time when the nation was in the throes of the Second World War and at a time when the AAWB was approaching the close of its fifth decade of existence as an association. As events developed, it did not meet in 1945.

Having bridged the war years, the 21st Biennial meeting of the AAWB met in Baltimore, Maryland, in 1947. The general sessions of this convention laid increasing emphasis on the needs of the deaf-blind and cooperation with the Veterans Administration for the war-blinded. For the first time, special consideration was given to the problems of travel techniques and mobility.

In the sectional meetings, the mothers' school for blinded children, held by the Michigan School for the Blind, received special note. This was an annual summer session, and had been operative since 1937. Its purpose was to assist mothers of blinded children to work more adequately with these youngsters, and in cooperation with the school itself.

In another sectional meeting, there was evidenced the first concern for the use of telescopic and contact lenses, plus a detailed report on the initial operative procedures relative to corneal transplants.

The Resolutions Committee took positive steps to preserve training developments resulting from the experiences with the war-blinded and, more importantly, requested that the Federal Government preserve these training facilities and techniques, and also that, not only the war-blinded, but that the civilian blind as well, have greater opportunities in employment under the

Federal Civil Service Program. The Committee also, by resolution, recommended that the Library of Congress continue to issue two-speed talking book machines to permit the users greater variety of recording.

The 1947 Convention also began to take initial steps to put the AAWB house in order: by dissolving the Vocational Guidance Committee, which had met, but showed no progress; by dissolving the Joint Advisory Committee on Research; and in final action, by dissolving the Committee on the War-blinded.

Change to Annual Convention

The Committee on the Certification of Home Teachers answered its skeptics by indicating that over two-thirds of the home teachers of the adult blind in the United States and Canada had either been certified or were in the process of making formal requests to become certified. Thus, it was demonstrated that, in this area, the AAWB, through the Certification Committee, was able to establish standards and to encourage professional workers for the blind to meet these standards.

As history bears out, the work of the Certification Committee on Home Teaching has been one of the fundamental strengths of the Association. Following the patterns set in this convention, the conference adopted major changes in its Constitution and By-laws, revising the old educational division and establishing eight groups for membership classification, as well as moving from a biennial to an annual convention. Classification of membership as adopted in the 1947 session was as follows: (1) Executive heads of agencies for the blind doing city-wide, county and local work for the blind; (2) Rehabilitation Specialists; (3) Home Teachers and Social Workers; (4) Lay and non-professional members; (5) Executive heads of a commission or association doing statewide work; (6) Executive heads of national agencies; (7) Executive heads of residential and day schools; (8) Libraries and publishing houses for the blind.

The changes in the Constitution and By-laws did not affect the corps of officers which continued to be President, First Vice-President, Second Vice-President, Secretary-General and Treasurer, each to continue to serve for a period of two years. There was, however, a change in the composition of the Board of Directors.

By convention action, the Board of Directors was reduced from 16 to 13 members and consisted of the elected Officers and one Board member to be elected from each of the eight groups. It was determined that the first four listed groups should elect their representatives for a two-year period to be followed by possible reelection, and that the last four groups listed in the preceding paragraphs would elect for a four-year period and might reelect their representatives. Under the changes, it was also established that the Board of Directors should function as the Nominating Committee for succeeding officers of AAWB. Other minor changes were accomplished relative to the administration of the Association during the 1947 meeting.

It was evident that in this convention were sown the seeds of evolution, which were to develop and grow in the next decade and a half.

Significant developments in the 1948 annual convention held in St. Paul, Minnesota, concerned themselves with: improved postal rates for the shipment of braillewriters and talking books; support for the American Foundation for Overseas Blind, importuning of the Federal Government for assistance to the war-ravaged countries and their blind population; a determined effort on the part of the AAWB to seek from Congress adequate funds to support vocational rehabilitation, adequate training for rehabilitation specialists, and to see a more definitive line between employment, assistance, and those factors which were causing serious problems in the post-war era.

Psychological Aspects Emphasized

The conference did not take any significant actions relative to the function of the Association, its structure, or any specific new programs.

The year 1949 saw the AAWB convene in Boston, and the general sessions of this convention emphasized the psychological aspects of blindness. These sessions were concerned with the attitudes of employers toward blindness, the attitudes of the sighted toward the blind, the blind toward the sighted, and the blind toward blindness. In addition, some attention was given to new opportunities for the blind in the professional areas of employment, namely, osteopathy and insurance brokerage.

The conference also moved to establish professional standards in the field of vocational rehabilitation. Personnel standards were presented for the following positions in a rehabilitation agency, and were adopted by the AAWB: chief of rehabilitation, preparation counselor, placement counselor, professional and clerical occupations specialist, and others.

The convention then moved into the area of vending stands and, by action of the conference, established additional standards for individuals working in these programs. It was obvious that the membership of AAWB was becoming increasingly conscious of the need to become professional in its attitudes.

The conference adopted a basic change in the Constitution, and added a 14th member to the Board of Directors. This was to be the immediately surviving Past-President of AAWB.

By resolution, this conference endorsed and supported the work of the National Psychological Council for Research and Blindness and recommended that all agencies serving the blind, by action of their respective boards, encourage and support membership of the professional staffs in AAWB and that budgeted amounts be made available for travel to the national conventions.

The AAWB membership also took cognizance of a multiplicity of new agencies for the blind which were springing up throughout the country, and recommended that standards for new agencies be established in order to preclude misrepresentation, fraud, and incompetency to be foisted upon the sighted and blind population.

At Salt Lake City in 1950, officers and members of the AAWB met and concerned themselves essentially with problems of the aging blind person, international cooperation with the needs of the overseas blind, continuing problems of working harmoniously with AAIB, and the serious need to cooperate with other community elements in services for the blind in processing the rehabilitation case. It was emphasized that the role of the home teacher, the private workshop, and other specialists might well be introduced to facilitate the rehabilitation of an individual. While this concept was not labeled such at the moment, it was the first effort to introduce the team approach in working with a blind person.

New Braille Committee Formed

The Constitution of the AAWB was again amended to provide for a ninth group, Business Enterprises Counselors and Vending Stand Specialists, and, with the approval of this amendment, the Board of Directors was increased from 14 to 15 members, providing an opportunity for the ninth group to have representation.

A growing need for reappraisal and possible revision of the official code of STANDARD ENGLISH BRAILLE was recognized by this convention, and by identical resolution with the AAIB, which had met a few weeks previously in Philadelphia, a new six-member Joint Uniform Braille Committee was formed, with authority to study the problems and negotiate with the British Type Committee as might be deemed necessary.

The Daytona Beach, Florida, meeting in 1951 concerned itself in the main with exploration and development of specialized services for the blind through papers presented in the general sessions. Other papers during these sessions included continued and greater cooperation with the Federal Office of Vocational Rehabilitation, a broadening of that program in services for the blind, and a strong plea that schools for the blind should recognize the value of a close working relationship with State agencies and begin at an early age to introduce vocational rehabilitation counseling to the students of these schools.

Again recognizing its national obligation, the AAWB established a "Civil Defense" committee, whose responsibility was to urge each delegate and each member of the Association upon his return home to contact the local Civil Defense office, and to become a part of the national program. The work of the committee emphasized the importance of blind persons in Civil Defense, and outlined the many opportunities which the blind might accept in their community programs.

The Resolutions Committee sponsored support of an amendment to the Randolph-Sheppard Act to provide that the authorized State licensing agency should have exclusive right for installation of vending machines on Federal property, and/or that Federal Employes Welfare Associations should be expressly prohibited from installing vending machines when such machines were in competition with the existing vending stand operated by a blind person.

By resolution, the AAWB supported the establishment of a national advisory committee to study ways and means of improving services for the blind. This convention also adopted a resolution strongly recommending a firm and permanent program of service to the war-blinded and war-disabled. This action came as a result of continuing reductions of personnel in the Veterans

Administration, which was then leading to the abolition of many programs under its jurisdiction.

Finally, the conference recognized the need for a history of the Association and recommended to the membership that several people be approached to write it. In addition, taking cognizance of a paper presented on Christmas-tree sales for the benefit of the blind, an effort was made to endorse this action as a national program, and to develop a symbol for Christmas-tree sales. However, the resolution was tabled by the convention on the basis that the AAWB could not exercise control over the sale or the use of the symbol, and that ultimately it would be required to endorse a variety of sales or fund-raising programs which might be open to question.

Report on Rehabilitation Centers

At Louisville, Kentucky, in 1952, the AAWB and the AAIB met simultaneously. The general sessions considered educational trends in schools for the blind and the responsibility for preschool blind children. Six papers concerned themselves with the matter of personal independence. In the group meetings, the home teacher's role was again emphasized as a part of the rehabilitation process, while thorough consideration was given to the development and use of homebound programs for the more seriously disabled blind persons.

A committee on rehabilitation centers for the blind made a report concerning the need to transmit information on the work of these centers to the AAWB membership, and to develop a network of inter-center communication in order to arrive at some common understanding, common standards and programming in these centers.

Along with the advent of the rehabilitation center, cognizance was taken by this convention of the establishment of the National Institute of Neurological Diseases and Blindness. In recognizing this facility, the AAWB underwrote a program endeavoring to impress upon its membership the importance of getting and studying all information about the need for expanded medical research, as well as medical facilities. The convention called upon agencies concerned with the prevention of blindness to cooperate with the National Institute of Neurological Diseases and Blindness, and the AAWB instructed all committees, especially the Legislative Committee, to assist the National Institute to bring before the appropriate governmental bodies the lack of research facilities relative to blindness.

In considering other program gaps of the day, the AAWB recommended to the Office of Vocational Rehabilitation that it reinstitute placement training for blind employment counselors in order that they might stay abreast of the technological changes in industry, and revise their sales techniques to meet the growing demand of a post-war industrial reconstruction period.

The convention went on record in opposition to any Federal controls concerning fund-raising, and indicated its support to the concept that each contributor should have the freedom of choice in designating the use of the gift.

The National Committee on Recordings for the Blind was directed by the AAWB during this convention to develop cooperation with other recording agencies and to establish a master file in order that improved services to students throughout the country might be achieved. Here again, the AAWB as an association demonstrated its concern for the need to establish professional standards, and in so doing, to improve services to the blind.

Pledged to Protect Public

Finally, this convention accepted the report of its Committee on Principles and Standards concerning the operation of agencies for the blind, and recommended that the AAWB provide a "seal of good practice" which would be issued to all agencies and organizations for the blind, providing they met the recommended conditions as set forth in the principles, and that in order to govern this program, the AAWB establish a permanent committee on ethics to consider applicants for the seal. Conditions which such applicants have to meet and adhere to were: (1) provisions for a representative board; (2) stated purpose of the organization; (3) a definitive program; (4) true representation of manufactured products; (5) ethical practices in its fund-raising — all of this to be certified by audit.

In promoting this program, the AAWB pledged its cooperation with better business bureaus throughout the country, as well as other information sources designated to protect the public.

Meeting in Washington, D. C., in 1953, the 27th convention of AAWB saw the election of the second Canadian President in the person of Capt. M. C. Robinson, National Director for Western Canada, of the Canadian National Institute for the Blind, Vancouver, British Columbia. In addition, this convention brought to the nation's capital one of the largest turnouts of membership in the history of the Association.

The general sessions again presented papers in areas previously covered. The high point of these general sessions was a paper presented on the psychiatric implications of rehabilitation by the late Dr. Louis B. Cholden, whose contribution in this field has stood not only as a pioneering work, but as a monumental contribution to the literature concerning blindness. In the group meetings, rural rehabilitation of the blind was highlighted. The panel discussed new opportunities in the field of agriculture. They pointed out how specialized projects for the blind were requiring modest outlays of capital and that with the modest acquisition of ground these projects could become self-sustaining economic ventures.

The convention adopted, on July 14, 1953, its first Code of Ethics, and, with the compliance to the Code, went the Seal of Good Practice to any agency or organization. The Code included the following areas of concern: agency boards; agency purpose; agency programs; cooperation; ethical promotion, which had to do with publication, solicitation of funds, representation of products, telephone solicitations and no solicitation of funds in areas which the agency soliciting renders no substantial service; regular audits; established budgets; and annual reports of activities. The Code further emphasized that no commissions could be paid for the solicitation of funds, and that agencies would be in violation of the Code of Ethics and the Seal of Good Practice if they mailed out unordered or unsolicited merchandise or tickets.

The convention then moved to amend the Constitution and By-laws in respect to voting and the election of officers, which hereafter was to be undertaken by secret ballot, if requested by the convention. Election to the Board of Directors by the sectional groups was also to be by secret ballot, if the group so chose. Further, the Constitution was amended to preclude the re-election of a Board member from a specific group. Thus, it became impossible for the composition of the board to remain virtually self-perpetuating. Amendments provided for the establishment of Life Memberships for $100, which was unanimously adopted. Structural changes also required that the President appoint the Auditing Committee at the beginning of each convention, rather than biennially, as had been done in the past.

The convention recommended by resolution that the Federal Civil Service Commission permit blind persons to apply for and take examinations on a wider range of jobs for which they were qualified. The AAWB also recommended that, because of the increase in blindness among children, facilities be separately established from those educating the deaf.

This convention closed, again requesting the Office of Vocational Rehabilitation to extend its counselor training programs to include those working in rural areas, and, in final action, the AAWB recognized the outstanding work of the International Lions Clubs of the world for the contribution they had made to services to the blind and visually impaired.

In 1954, the AAWB moved its convention to Houston, Texas, with four papers being presented at the general sessions on the philosophy of work for the blind in the areas of adjustment, recreation, employment and grant-in-aid programs for rehabilitation. The general sessions also included papers on new developments in the field of optical aids and prevention of blindness. The Industrial Home for the Blind, of Brooklyn, introduced a new program in services to the deaf-blind, and other specialized services to adults. In the group meetings concerned with employment, it was noted that semi-professional, professional and service occupations were leading the way in developing new opportunities for the blind. However, with these new advances, 20 per cent of the annual rehabilitations were still being made in industrial job opportunities.

Focus on Economic Condition

A major effort was made to endorse a uniform policy regarding employment of the blind to be established by the National Labor Relations Board. However, after a rousing discussion on the subject, this resolution and recommendation was defeated by a margin of thirteen votes. The Association then planned to return across the border in 1955 to meet in Quebec City, Province of Quebec, Canada.

During the course of the 29th meeting of the AAWB, in Quebec, the general sessions saw more attention given to fund-raising, the economic condition of the blind, and agency administration.

During this convention, the Ethics Committee moved an amendment to the Code which rescinded the provision that in order to obtain the Seal of

Good Practice, it was necessary for an agency to have at least three people in either administrative, professional or technical categories. The motion further condemned coin boxes in public places, postman's walks, and similar fund-raising activities and directed that the Seal of Good Practice be withheld from agencies engaged in such practices. By action of the convention, the Ethics Committee was empowered to issue regulations that, on a limited basis, policed the Seal of Good Practice.

Significantly, the convention received the report of the Long-range Planning Committee, which highlighted the recommendation that the Past-Presidents constitute an Advisory Board to the Board of Directors on questions of amending the Constitution and By-laws of the AAWB. The Long-range Planning Committee recommended that the AAWB return to a biennial national convention and that in the alternate years it have regional conventions. The recommendations further provided that the national convention be rotated from region to region, thus giving the broadest possible opportunity for people to attend. This was a comprehensive document the intent of which was to strengthen the organizational characteristics of the Association, and give it an opportunity to develop a broader base. As the succeeding years will indicate, the report of the 1955 Quebec Long-range Planning Committee has continued to be a source document for the growth of AAWB.

In 1956, the 30th meeting of the AAWB was held in Los Angeles, with the general sessions highlighting work for the deaf-blind and a reappraisal of the need for specialized services for the blind.

By resolution, the Convention took note of the relatively few Seals of Good Practice which had been issued and recommended a study be undertaken to determine why. Similarly, the convention took note of the changing employment conditions in the nation, and the apparent lag of placement in professional areas of blind people. Both resolutions clearly stated the responsibility of the Association to be alert to and aware of the need to move ahead in these areas.

During the course of the business sessions, a long floor battle occurred on the attitude of the AAWB toward public assistance. A resolution was finally adopted pertaining to public assistance which carried a statement affecting the dignity of the individual right which requires that public funds be available to assist adequately each needy blind person. The statement went on to say that "adequate" meant maintenance of a standard of living compatible with that in a community where the blind person lived. The convention further acted to support the retention of Titles X and XI of the Social Security Act to further bolster the economic condition of blind persons.

This convention also adopted a constitutional amendment which provided for the payment of Life Memberships in four equal installments of $25 each.

In 1957, the 31st convention of the AAWB returned to the midwest, Chicago.

The business sessions considered amendments to the Constitution and By-laws establishing additional groups, providing: the request had the endorsement of 50 members in good standing; was submitted to the Board of

Directors approved by them; and then passed by a two-thirds vote of the membership present at the next regular business meeting of the AAWB.

Need for Trained Personnel

The line of succession to the Presidency was also reestablished in that the First Vice-President automatically became President and, in the event that the elected President should not finish his term of office, the First Vice-President assumed those duties as well as the right to a full two-year term thereafter. It further provided that, in the event the principal officer (President) became incapacitated, the Board of Directors, by a majority vote subject to two-thirds vote of the membership, might remove that officer for cause.

The general session papers of this convention urged that services to the blind could advance only if there was greater emphasis on the public and private agency working together at the community level and also reviewed the National Personnel Standards practices in services for the blind. The general sessions heard reports from the American Foundation for the Blind and the National Bureau of Labor Statistics concerning the need for additional trained personnel.

Also included in the Chicago convention program were the new provisions for OASI disability benefits, while group meetings concerned themselves with not only the blinded individual, but the impact of blindness on the total family structure. This convention, moving towards its close, recognized the new trends on the national scene, which were to concern themselves with the total family unit, its economic need, the possible restorative processes, both financial and rehabilitative, which might return that family unit to an acceptable socio-economic status in the community.

When the 32nd convention of the AAWB opened in Philadelphia in 1958, the familiar personality of Alfred Allen, Secretary-General, had passed from the scene. He was to be succeeded by Hulen C. Walker, who had resigned from the Presidency of AAWB to accept the Executive Secretaryship, and in so doing, H. A. Wood, Executive Director of the North Carolina Commission for the Blind, acceded to the Presidency.

In 1958, the Association structure had grown to include the following standing committees: Ethics, Board of Certification of Home Teachers, Braille, Legislative, Membership, Past-Presidents, Music, Recreation, Rehabilitation, and Vending Stand.

It is important that at the Philadelphia convention the total membership had reached 1,667 members, including 91 from Canada, 2 from Cuba, 1 from France, and 2 from Mexico. The importance of membership was emphasized, with Pennsylvania leading with 330. Tennessee had moved into second place acquiring 121 new members for a total of 187, and New York was in third place with 142.

During this convention, a special evening session was held on the education at the community level for the deaf-blind. Here again, the experiences recorded by the Industrial Home for the Blind of Brooklyn played a major role in bringing to the attention of the AAWB the great needs in this field of service.

This convention received a report on the history of the World Council on the Welfare of the Blind, the original concept of which developed in the early 30s. However, it was not until 1949 when, in Oxford, England, nations throughout the world sent delegates to bring together a body of knowledge concerning work for the blind. Since 1949, the General Assembly of the World Council had continued to convene with a meeting in Paris in 1954 and another one projected in 1959 for Rome.

Horizons of Service Broadened

Thus, in cooperation with other national agencies and organizations, the American Association of Workers for the Blind broadened its horizons of service to the world-wide scene, as well as continuing its efforts within the framework of the North American continent.

Two major committees reported to the floor of the convention relative to their work. The Committee on Certification of Home Teachers indicated that a general review and history of the activities of this group should be undertaken, and that a review of teacher qualifications and other factors needed to be considered, with a view to recommending at the next convention changes in the certification regulations.

The Ethics Committee reported its activities over the five-year period of its existence. During that period, 147 applications for the Seal of Good Practice, including renewals, had been considered by the group, and that, as of the report, 36 agencies were receiving the Seal. Thus, in the five-year period, the Committee on Ethics had handled 65 original applications, 53 had been granted, 31 renewals were granted, 24 second renewals, 17 third renewals, and five fourth renewals. Three applications had been denied in the five-year period; three were not considered; one had been withdrawn. Dr. Francis J. Cummings, who then served as Chairman of the Ethics Committee, pointed out the many problems involved because of a lack of substantial definition, and that the Committee had found it necessary to devise its own definitions, thus frequently leaving it open to criticism.

The Joint Uniform Braille Committee of the AAWB and AAIB presented a report on its work since 1950, including the 1956 London Conference with the British National Uniform Type Committee, looking to a revision of the braille code for the English-speaking world. By resolution, the following braille codes were officially adopted: ENGLISH BRAILLE, AMERICAN EDITION — 1959 and NEW REVISED INTERNATIONAL MANUAL OF BRAILLE MUSIC NOTATION, 1954, the latter of which had been developed by an international conference in Paris, France, in 1954, under the auspices of the World Braille Council. The convention also authorized appointment, by joint action with the AAIB, of a new permanent three-member Braille Authority, whose responsibility would be to develop and revise all necessary codes of braille notation, with final adoption thereof to continue to lie with the membership of the two Associations.

The Board of Directors during this convention was requested to consider two growing problems in the AAWB. First, it was noted that the Shotwell Memorial Award Banquet was drawing a diminishing attendance, although previously it had been considered the highlight of the annual conventions. It was suggested that the Board give consideration to holding this banquet earlier on the convention program. Secondly, the Board was requested to consider the establishment of an over-all Program Committee to preclude the overlapping of group meetings which prevented individuals from attending all meetings of interest groups of their choice because of concurrent schedulings.

Stress Service to Deaf-Blind

Dr. Cummings, who at that time chaired the Policy Committee, indicated that, before a statement of principles, and/or policy, could be presented to the AAWB for consideration, additional research was required, and that this Committee would be prepared to give a progress report at the next meeting of the Association.

Detroit was the site of the 33rd convention of the AAWB held in 1959. General sessions essentially covered many of the topics which had been reviewed in previous sessions. However, again there was emphasis on services to the deaf-blind from 1939 to 1959, and a projection of needs in this and other areas to 1979. In addition to the Annual Shotwell Memorial Award, the Alfred Allen Memorial Award was presented for the first time.

Other topics under consideration essentially focused on the need for the future in services for the blind, including the planning of rehabilitation centers, rehabilitation programs, home teaching, casework service, prevention of blindness and a variety of other topics. It also should be pointed out that, at this point, serious consideration was given to the structuring of the national convention of AAWB for the future.

The Committee on Home Teacher Certification made major recommendations, including the abolition of Home Teacher Class I and Class II, and recommended the substitution of Certified Home Teacher and Certified Home Teacher Specialist. In the latter group, additional work in fields of specialization, such as deaf-blind, advanced crafts, etc., might be undertaken. It is noteworthy that the Certification Board over the years constantly strove to increase the standards of home teaching and to bring this profession from the status of "friendly visitor" to that of teacher, qualified to work at a community-based level with the individual, and, as the Certification Board indicated, to make this professional worker an integral part of the rehabilitation process.

The Resolutions Committee took note that, for the past several years, the Long-range Planning Committee report had been buried in the files of the Quebec convention, and by its resolution recommended that the details of this plan be reexamined, that the President of the AAWB appoint a committee of seven to study the possible points of implementation of the long-range plan, and give a detailed report to convention sessions at Miami Beach in 1960. By action, the President of the AAWB and the Board of Directors were also mandated to provide business sessions earlier in the convention and to consider a reduction in the length of the convention.

Again taking cognizance of national movements and legislation, the AAWB in closing, endorsed passage of the Forand Bill.

In 1960, the AAWB moved to Miami Beach and, in one of the early business sessions, a long discussion occurred concerning the report of the Ethics Committee, which contained the recommendations that the Board of Directors appoint a committee to work with the Ethics Committee for the purpose of studying the present Code, recommending improvement and consideration in the ways and means of making the Seal of Good Practice effective.

Further actions by the convention required that the President appoint a committee of nine persons, who would be charged with the responsibility of reviewing the structure of the AAWB, its Constitution and By-laws, to review the composition and powers of the Board of Trustees and the Executive Committee, particularly in relationship to the position of the full-time director which would result in a more effective and efficient balance between administrative control and policy-making functions, and to establish close liaison between this Committee and the Committee charged with reviewing the 1955 Long-range Planning Committee recommendations. Also included in this mandate was the need to develop a long-range practical fiscal program which would insure adequate financial support for the Association. Finally, these committees were instructed to report at the next annual meeting.

In this convention, the first indications of problems of discrimination were brought to the floor, and by action of the AAWB, it was declared that the convention should not go to any community whose guests of the convention or membership would be subject to discrimination because of race, creed or color.

The convention proceedings included essentially new views on many topics which had been covered in the earlier conventions. The Association wound up with a searching self-analysis of its membership decline, the need to produce new and useful materials, to encourage membership, and to begin an active campaign of revitalization of the entire structure. Thus, in Miami Beach, we see the throes of the present growing pains in which the Association became engaged, hoping to establish itself as a professional and representative organization of workers for the blind throughout the North American continent.

At a late date, the convention site for 1961 was changed from Memphis, Tennessee, to St. Louis, Mo., for the 35th meeting of the Association. The general sessions of the convention were devoted to the concept of citizenship and the responsibility of the blind person to exercise citizenship. These roles included rehabilitation, education and other factors to establish the blind person in an acceptable and vital role in the community. The considerations included the effect of continued public assistance on the role of citizenship, insofar as the blind and visually impaired persons were concerned.

The Ethics Study Committee reported progress in its work to improve the Code which was now in its eighth year, and while it made several recommendations, it indicated to the convention the need for continued study, and suggested that the Study Committee be continued. The Committee indicated approval of eight renewals and one application pending. It pointed out, however, that now only 29 agencies, as opposed to 35 several years ago, concerned themselves with acquiring this Seal of Good Practice.

The special Committee on Structure and Fiscal Control, chaired by the late Allen W. Sherman, reported to the delegates assembled and, after a lengthy floor discussion and debate, three major amendments to the Constitution and By-laws of the AAWB were adopted:

1. That the Constitution would be changed so that the By-laws would be adopted and amended by a majority vote of the membership present, provided that the proposed amendments had been submitted in accordance with the By-laws, that is, that they had been mailed to the membership thirty days prior to a meeting.

2. That the By-laws were to be amended to include the Home Teachers Certification Committee as a regular committee of the Association.

3. That the written ballot was eliminated and that a secret ballot would be taken whenever there was more than one candidate nominated for an office. Other principal changes which occurred in the structure of the AAWB during the St. Louis convention, included the election of the first three members of the Board of Directors for a three year term, thus gradually eliminating the old group representation concept.

The convention further adopted the concept that after the incumbency of the then President, Mr. Jacobson of Portsmouth, Va., had been completed, the officers would in the future serve for a one-year period only. The convention further indicated that a continuing study relative to regionalization of the organization should be undertaken, and also that serious consideration needed to be given to the working relationships with the AAIB, raising the question as to whether or not work for the blind needed and could legitimately support two national associations.

Reorganization of National Office

In addition, the St. Louis convention determined to reorganize the Association meetings, eliminating the nine or ten individualized groups and coordinating them on a broader basis so that these groups were to have representation in the general sessions, and that the sectional or group meetings would become subordinate to major general sessions.

As a result of the St. Louis convention, there was also a clear indication that an overhaul of the national office of AAWB was required if the Association was to progress toward leadership in the field of work for the blind.

Following through in this reorganization the officers of the Association now are President, President-Elect, Corporate Secretary, Treasurer, while the Executive Secretary of the Association is an employee of the Board of Directors and its Executive Committee. As noted previously, the Board of Directors was ultimately to be selected from the floor of the convention and consists of twelve members, none of whom can run for reelection without an intervening period of absence from the Board. In addition, the immediate Past-President also serves as a member of the Board. Following this reorganization the Board of Directors elects two of its members to serve on the Executive Committee of the Association, which includes all officers and the Past-President.

The Executive Committee of the Association, at this time, was given the responsibility of defining the powers and duties of the Executive Secretary, to fix his rate of compensation and to supervise the national office, to receive the budget and to assume the responsibility for evaluating the work of the national office.

As mentioned previously, the interest groups were aligned and are now as follows: (1) administrators of private and voluntary agencies serving the blind; (2) rehabilitation and employment services; (3) social case services; (4) educational services; (5) literary and library services; (6) group services which include recreation, day centers and residential centers.

Revisions also permit the President to appoint such additional committees as might be required. In addition, an Awards Committee was established to consider candidates for the Shotwell Medal and the Alfred Allen Award.

The St. Louis Convention had the opportunity to receive the completion of the Home Teaching Study undertaken and prepared by Miss Elizabeth Cosgrove under a grant from the then Office of Vocational Rehabilitation. This study and its acceptance by the AAWB was to point the way in subsequent years to an overhaul in the training and certification of home teachers.

Continuing in the vein of reorganization, the convention then adopted a series of memberships permitting organizations, clubs, etc., to take out memberships based on budget and personnel. Also, it was agreed to continue the $10 annual membership, but it was recommended that the Life Membership be increased from $100 to $200, but that those who had already started Life Memberships on the four-installment plan should be permitted to complete them at the rate of $100. Finally, the St. Louis convention adopted a statement of principles to serve as the guiding beacon for the ensuing years.

'62 Convention Emphasizes Employment

In 1962, the AAWB convention met in Cleveland under the direction of its newly-employed Executive Secretary, Dr. Gordon B. Connor. It became a first opportunity to implement the recommendations, in part, of the St. Louis Convention. President Jacobson was serving the first of his two-year term, and the Convention, with major reorganization, moved ahead, showing in excess of 1200 people registered for the meetings.

The content of the Convention emphasized employment, and the need to compete in a rapidly automating or automated industrial period. The Association also concerned itself with the development of research projects in its national office, and to this end the Vocational Rehabilitation Administration had made, or had intended to make, several grants. These ultimately included the compilation of a bibliography on blindness, the contemplation of a teaching demonstration and the contemplation of an annual publication representing the best thinking and information concerning blindness during a specific year.

In 1963, the AAWB again moved to the West Coast to Seattle, Washington. Because of travel distances, less than 400 persons were in attendance. However, the general sessions produced some progressive guidelines for the future in work for the blind. Noteworthy among the presentations was that of Dr.

Arthur Flemming, President of the University of Oregon, and formerly Secretary of the Department of Health, Education, and Welfare, Washington, D. C.

At the close of the Seattle Convention, Jake Jacobson stepped down as President, and Miss Marjorie Hooper, of the American Printing House for the Blind, took over the leadership of the Association. One of the principal concerns which Miss Hooper expressed was a continuing need to study the structure of the Association and the possible regionalization of AAWB. To this end, she appointed a strong committee with instructions to report in detail to the 1964 Convention, which is to meet in conjunction with the Quinquennial assembly of the World Council on the Welfare of the Blind.

Many Dedicated Persons

Thus, in these pages, we have attempted to bridge nearly seven decades of history. The shadows of such personalities as the Shotwells, the Latimers, the Bakers, the Robinsons, the Cummings', the Clunks, the Watts', the Alfred Allens, the Shermans, and many others fall long across the pages of this brief history.

Certainly these are not the only dedicated persons who have given much to the American Association of Workers for the Blind, but they are representative of those who believe that blind persons have a place in the society of the time and that the American Association of Workers for the Blind must be dedicated on a continuing basis to secure that place in society.

History is written of men and events. Both have been present in the history of the American Association of Workers for the Blind.

PRESIDENTS OF THE AMERICAN ASSOCIATION OF WORKERS FOR THE BLIND

1905-1909	Charles H. Jones, Connecticut
1909-1911	E. J. Nolan, Illinois
1911-1915	Eben P. Morford, New York
1915-1919	Charles W. Holmes, Mass.
1919-1925	H. Randolph Latimer, Md.
1923-1927	Robert B. Irwin, New York
1927-1931	Calvin S. Glover, Ohio
1931-1933	George F. Meyer, Minnesota
1933-1934	Herman M. Immeln, New York (died Sept. 28, 1934) succeeded by —
1934-1937	L. L. Watts, Virginia
1937-1939	A. C. Ellis, Kentucky
1939-1941	Col. E. A. Baker, Canada
1941-1943	Peter J. Salmon, New York
1943-1947	J. Robert Atkinson, California
1947-1949	Francis J. Cummings, Delaware
1949-1951	Francis Ierardi, Mass.
1951-1953	Roy Kumpe, Arkansas
1953-1955	Capt. M. C. Robinson, Canada
1955-1957	Joseph F. Clunk, Pennsylvania
1957-1958	Hulen Walker, Washington, D. C. (resigned June 1958)
1958-1961	H. A. Wood, North Carolina
1961-1963	Jake Jacobson, Virginia
1963-1964	Marjorie S. Hooper, Kentucky
1964-	Douglas C. MacFarland, Ph.D., Virginia

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FOUNDED 1895
SEAL OF GOOD PRACTICE
INCORPORATED 1955